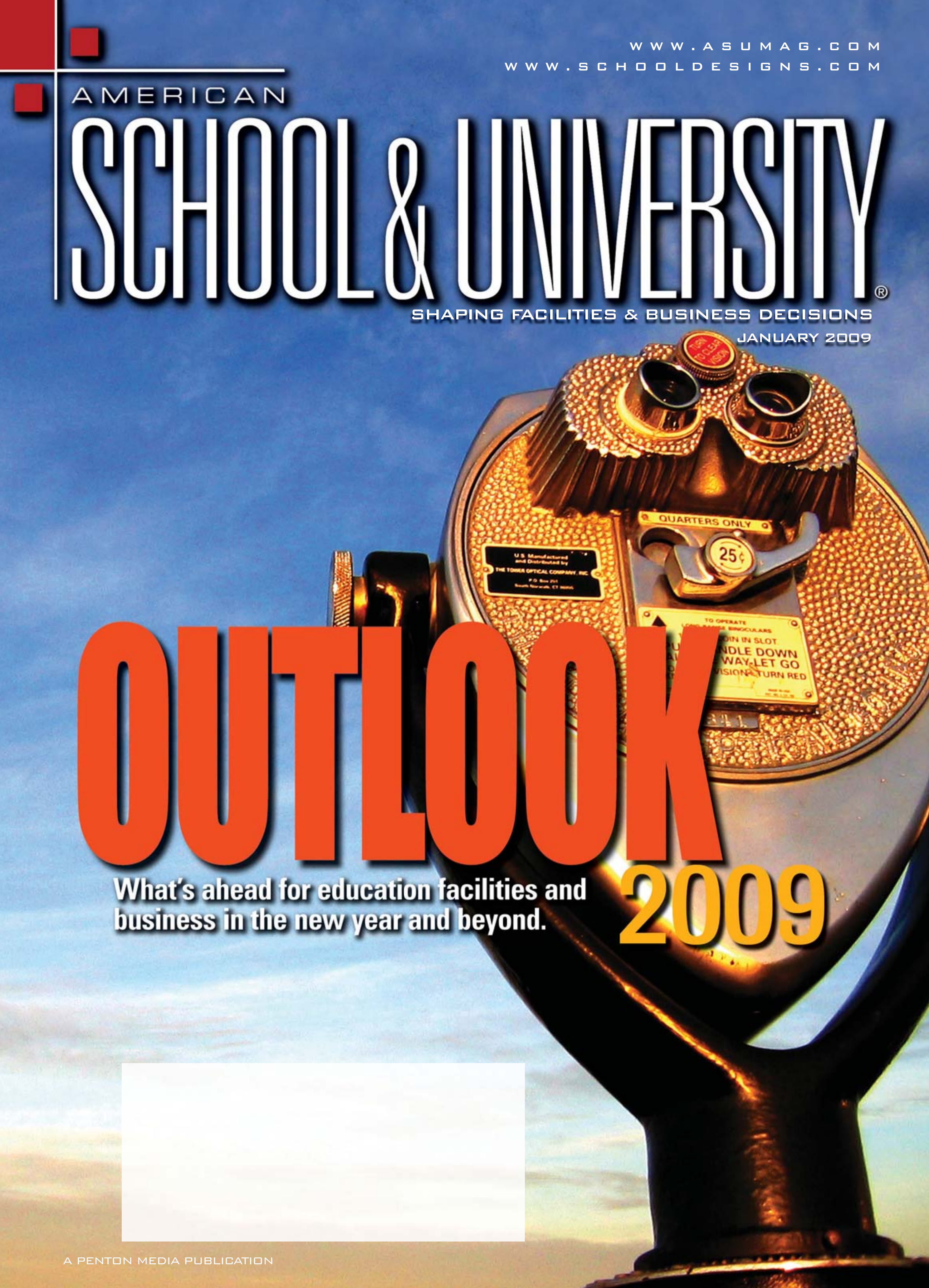
WWW.ASUMAG.COM
WWW.SCHOOLDESIGNS.COM

AMERICAN SCHOOL & UNIVERSITY®

SHAPING FACILITIES & BUSINESS DECISIONS

JANUARY 2009



OUTLOOK 2009

What's ahead for education facilities and business in the new year and beyond.

A PENTON MEDIA PUBLICATION








AMERICAN SCHOOL & UNIVERSITY
SHAPING FACILITIES & BUSINESS DECISIONS
VOLUME 81 • JANUARY 2009 • NUMBER 5

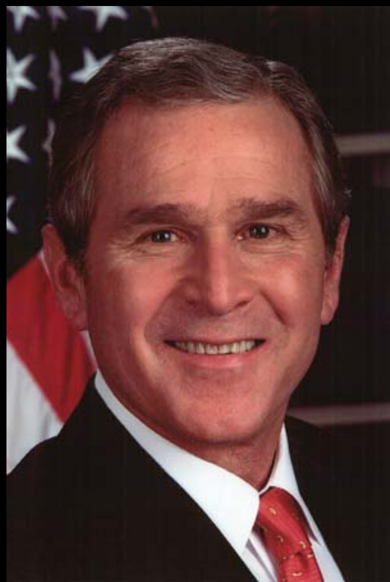
CONTENTS

DEPARTMENTS

6 EDITOR'S FOCUS
12 CONSTRUCTION ZONE: OUTLOOK 2009

VIEWPOINT:
45 TECH TALK
46 FACILITY PLANNING
48 GREEN CLEANING

50 PRODUCT SOLUTIONS
58 AD INDEX



Out with the old: George W. Bush



In with the new: Barack Obama

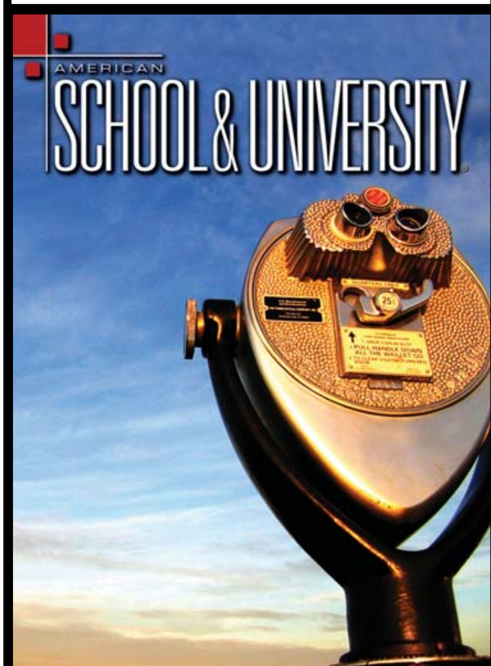
OUTLOOK 2009

20 WHAT'S AHEAD FOR EDUCATION FACILITIES AND BUSINESS IN 2009 AND BEYOND. INCLUDING:

- Enrollment
- Construction
- The Economy
- Transportation
- Class size
- Energy
- New Leadership
- Security
- Technology
- Sustainability

SECURITY/LIFE SAFETY
39 EMERGING TRENDS
ADDRESSING EVOLVING SECURITY NEEDS ON CAMPUS.

FUND RAISING
42 LUCRATIVE PARTNERSHIPS
AFFINITY MARKETING AS A FUND-RAISING STRATEGY.



Free, interactive event!
Mark your calendar for an innovative, groundbreaking event: GREEN School & University Virtual Conference & Expo, June 24, 10:30 a.m. to 6 p.m. EST. Learn about new technologies and share best practices. To register, visit the website: ASUmag.com/green_virtual_conference

www.ASUmag.com · www.SchoolDesigns.com


Cleaning For Health
and Efficiency
Rx
ProTeam
SUPERcoach
ProTeam
The Vacuum Company

Big Plans



For many of us, 2008 was a year we were glad to see end. As 2009 begins, the country finds itself embroiled in an economic crisis not seen in generations; and welcomes a new president who, among other things, is asking for a massive stimulus plan to help boost the sinking economy.

A part of the planned economic stimulus is an infusion of federal money to fund education construction and expand broadband access in schools. This is welcomed by education institutions, which have not been immune to the economic woes facing the nation, and the possibility of additional capital for facilities will help in addressing a backlog of needs.

Whether the proposed stimulus plan will help solve the country's economic crisis is yet to be determined. But by targeting school construction, repair and technology as part of the plan, money will go toward improvements that not only will add jobs and provide much-needed new space, but also will help make the environments where children learn more healthful and conducive to learning.

Not to be left out of the equation, colleges and universities also have asked for part of the proposed stimulus funds. A coalition of higher-education leaders last month asked Congress to commit 5 percent of any economic stimulus program to the nation's colleges and universities to help fund construction and renovation projects. According to the coalition, the "investment" would create hundreds of thousands of jobs and be used to build classroom and research buildings that meet green standards.

Going green also is part of the stimulus plan proposal for schools, as the benefits of green/sustainable design and construction not only contribute to improving the environment, but also lead to long-term operational savings—providing significant payback over the life of the investment. ■

(Make sure to read ***Web 101*** *at the right for information on a groundbreaking, FREE event that will help you stay at the forefront of the green/sustainability movement.)*



jagron@asumag.com

WEB 101

Save the Date!

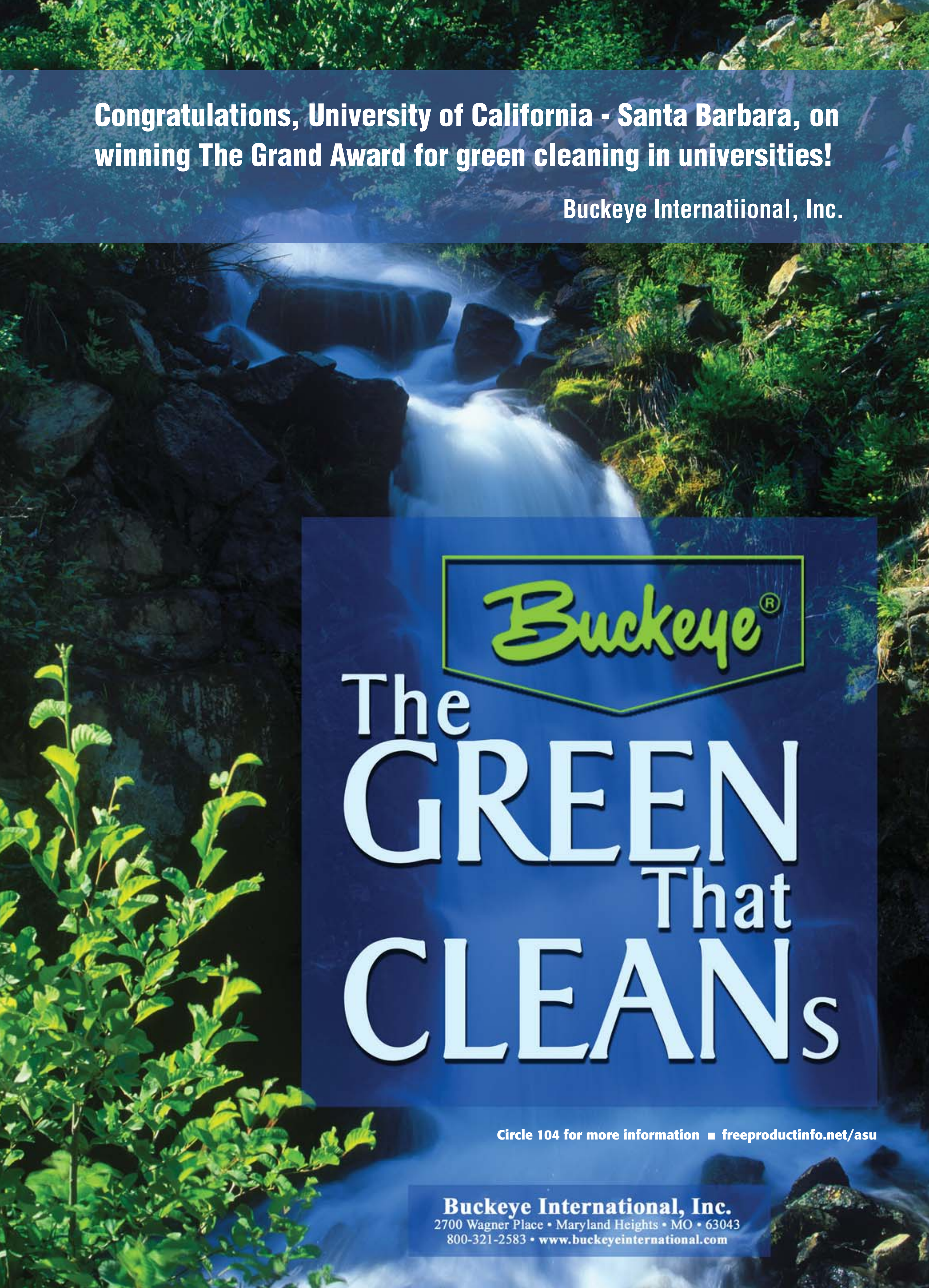
Looking to learn more about the latest technologies and trends in green/sustainable education design, construction, operations, maintenance and management? How about being able to do it without leaving your office—and without spending a dime?

Then mark your calendar for an innovative, groundbreaking event—**GREEN School & University Virtual Conference & Expo**, June 24, 10:30 a.m. to 6 p.m. EST.

As travel budgets and time constraints make it more difficult to attend traditional conferences and trade shows, *American School & University* has an alternative—the GREEN School & University event brings together industry thought leaders, school and university facilities and business professionals, and knowledgeable vendors into a one-day, interactive event where you can learn about new technologies and developments, share best practices, ask tough questions and get solid answers.

Arm yourself with intelligence and information to bring your school or university into the forefront of the green/sustainability movement. Make sure you are part of this groundbreaking, FREE event. For more information and to register, visit ASUmag.com/green_virtual_conference.
—Joe Agron





Congratulations, University of California - Santa Barbara, on winning The Grand Award for green cleaning in universities!
Buckeye Internatiional, Inc.
Buckeye®
The GREEN That CLEANs
Circle 104 for more information ■ freeproductinfo.net/asu
Buckeye International, Inc.
2700 Wagner Place • Maryland Heights • MO • 63043
800-321-2583 • www.buckeyeinternational.com

ASUMAG.COM • SCHOOLDESIGNS.COM

AMERICAN SCHOOL & UNIVERSITY

MEMBER ORGANIZATIONS

- Business Publication Audit of Circulation, Inc.
- Educational Press Association
- American Business Media

***American School & University*, Volume 81, Issue 5,** ISSN 0003-0945 is published by Penton Media Inc., 9800 Metcalf Ave., Overland Park, KS 66212, 913-341-1300.

SINGLE COPIES: To order single copies, call 866-505-7173 (USA) or 847-763-9504 (outside USA).

SUBSCRIPTIONS: Free and controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following rates: USA: 1 year, $69, 2 years, $109; Canada: 1 year, $79, 2 years, $139; other international: 1 year, $99, 2 years, $159. Prices subject to change. For subscriber services, write to *AS&U*, PO Box 2100, Skokie, IL 60076-7800; call 866-505-7173 (US) or 847-763-9504 (outside US); or visit asumag.com.

POSTMASTER: Send address changes to *AS&U*, P.O. Box 2100, Skokie, IL 60076-7800 USA.

CORPORATE OFFICE: Penton Media Inc., 249 W. 17th St., New York, NY 10011; penton.com


Bigelow
sensible style
mix & match
for less scratch
Product Shown: Chainstitch–Cobble Stone
The Mohawk Group / 800-554-6637
QUICKSHIP
Bigelow combines style, affordability and speed with the most comprehensive color coordinated QuickShip program ever. How sweet is that!
www.bigelowcommercial.com
Circle 105 for more information ■ freeproductinfo.net/asu

SUSTAINABLE *Beauty*

SUSTAINABLE BEAUTY OF ELDORADO STONE BLENDS LANDMARK LIBRARY TO NATURAL SURROUNDINGS

The authenticity and timeless beauty of Eldorado Stone is found in this award-winning library in Temecula, California. Panoramic views and state-of-the-art technology are what visitors find at this 32,000-square-foot facility. The design of the library is based on a cathedral spine that divides the building into three main sections including a large community room where a massive, 40-foot stone fireplace creates a beautiful focal point.

To complement and balance the extensive use of glass throughout the project, more than 10,000 square-feet of Eldorado Stone's Manzanita Cliffstone profile was used. "We originally considered natural stone, but we liked the look we achieved with Eldorado," says Bill McAteer, Construction Manager for the City. "It blended beautifully with the hillside and gave us exactly the look we wanted."

Architect Craig Whitridge of LPA, Inc. the architectural firm that designed the project adds, "Our goal in using Eldorado was to find a stone that could replicate what is found naturally in the area, but in an economical fashion that could be used today."



Providing architects and designers more creative tools to work with is part of Eldorado's commitment to developing ground-breaking products and offering more sustainable solutions for its customers. Today, the company offers eco-friendly manufacturing processes that include the use of recyclable contents into its stone products.

"Depending on the manufacturing plant and mix design specified, our stone can incorporate both pre-consumer and post-consumer recycled content that helps architects and designers earn LEED points for their projects," says Brent Spann, VP of Marketing for Eldorado Stone.

U.S. GREEN BUILDING COUNCIL USGBC®

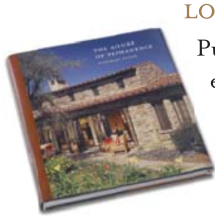
78 PERCENT OF THE U.S. POPULATION IS WITHIN 500 MILES OF AN ELDORADO STONE PLANT WHICH SATISFIES AN IMPORTANT LEED REQUIREMENT.

At half the weight of natural stone, shipping weight and installation costs are reduced, making for a more user friendly product. "We have five manufacturing plants strategically located across the United States," says Spann. "That means that 78 percent of the U.S. population is within 500 miles of an Eldorado Stone plant and allows us to meet one of the most important LEED requirements. We're also committed to sourcing local raw materials to construct our products," he adds.

"We're honored that our stone was selected for this prestigious library project," says Spann. It's gratifying to know that so many people will enjoy this library and all the attention to detail that went into creating such a welcoming place to learn."

For details about Eldorado Stone's commitment to green building practices, please call 800.925.1491. For inspiration, visit our photo gallery of beautiful and diverse installations at eldoradostone.com.

LOOKING FOR INSPIRATION?



Purchase *The Allure of Permanence*, Eldorado's exquisite 160 page full-color hardbound book. Visit eldoradostone.com/allure to see how Eldorado Stone is used as the foundation for memorable spaces.




THE MOST BELIEVABLE ARCHITECTURAL STONE VENEER IN THE WORLD™

CONSTRUCTION ZONE



Browning High School rendering, Blackfeet Indian Reservation, Browning, Mont.



Ocean County Community College, social science center rendering, Toms River, N.J.

Ready, set, grow

A new social science center is scheduled for completion by September at Ocean County College, Toms River, N.J. The college's enrollment surge necessitated the new building. Enrollment numbers have increased an average of 7 percent annually. More than 9,000 students attend the school.

The $12 million project is designed for LEED certification and complements the traditional exterior of neighboring buildings, including the campus library and other academic facilities. The 30,000-square-foot facility will feature classroom space, computer labs, faculty offices, student and staff lounges, storage areas and a conference room.

The architect is DMR Architects (Hasbrouck Heights, N.J.). French & Parrello (Wall, N.J.) and KS Engineers (Newark, N.J.) assisted with the project.

Paying tribute

Browning High School, Browning, Mont., is situated on the Blackfeet Indian Reservation and is designed to preserve the tribe's rich history. The 800-student facility for grades 9 to 12 integrates Blackfeet Indian culture into every aspect of its design.

The main entrance to the building faces east and will feature a canopy that resembles the shape of a tipi. Images of the Big Dipper and Pleiades constellations, the same symbols found on the smoke flaps of Blackfeet tipis, decorate the building. The sun will be incorporated into the flooring at the school's entrance, and the moon will be represented in the office commons area. Triangles, representing buffalo heads, will be grouped around a circle in the cafeteria, and the morning star will be situated at the westernmost edge of the media center, facing the mountains. A circular seating pattern in classrooms continue the tribe's tradition of storytelling and creates a more meaningful learning environment.

The Blackfeet Indians' respect for the land is translated into numerous sustainable-design features, including a biomass boiler system for heating, similar to a traditional tipi. This system uses forest biomass, such as small-diameter trees, shrubs and debris from logging operations and forest fuel-reduction projects, which typically are piled up and burned as waste. The boiler is expected to burn 1,250 tons of locally grown fuel each year, while saving the district about $48,600 annually.

This project is scheduled for completion in June. The architect is Fanning Howey (Michigan City, Ind.), in association with L'Heureux Page Werner (Great Falls, Mont.).

Applied learning

The Early Childhood Development and Parenting Education Center at Harris-Stowe State University, St. Louis, is budgeted at more than $17 million, with completion expected in July.

The building will be situated adjacent to the campus' main entry. Its highly visible roof will be covered in a smooth, reflective membrane embossed with a circular motif that is repeated throughout the courtyard area. All HVAC systems are hidden under a cantilever behind the building, instead of on top of the roof, to create a clean canvas appearance from above. The second wing of the facility, which is connected yet separate from the children's area, will house the Education Department's classrooms and offices. A glazed cutout through the roof and floor allows natural light in at the lobby of a second entrance.

Safety and security is achieved via separation of the children and their teachers from university students and staff, but the facility also will contain high-tech audio and video systems for students and parents to observe children from the higher-education classrooms or observation rooms with mirrored one-way glass. Additional amenities include a parents' library and education room, multipurpose room with full kitchen, a student computer lounge and a large multi-media professional development classroom/lecture hall.

This project is seeking LEED silver certification. Environmentally friendly measures include a highly energy-efficient mechanical system with an energy wheel and variable-air and water-valve systems; pervious pavement and play surfaces to help reduce drainage into the storm sewers; a rain garden and landscaping to facilitate the slowdown of storm water to the sewage system; and recycled rubber on the surface around the playground.

The architect is KAI Design & Build (St. Louis). Kozeny-Wagner, Inc. (Arnold, Mo.) is the general contractor, and Kwame Building Group, Inc. (St. Louis) is the construction manager and owner's representative.



Green Elementary School rendering, Chesterfield, Mich.

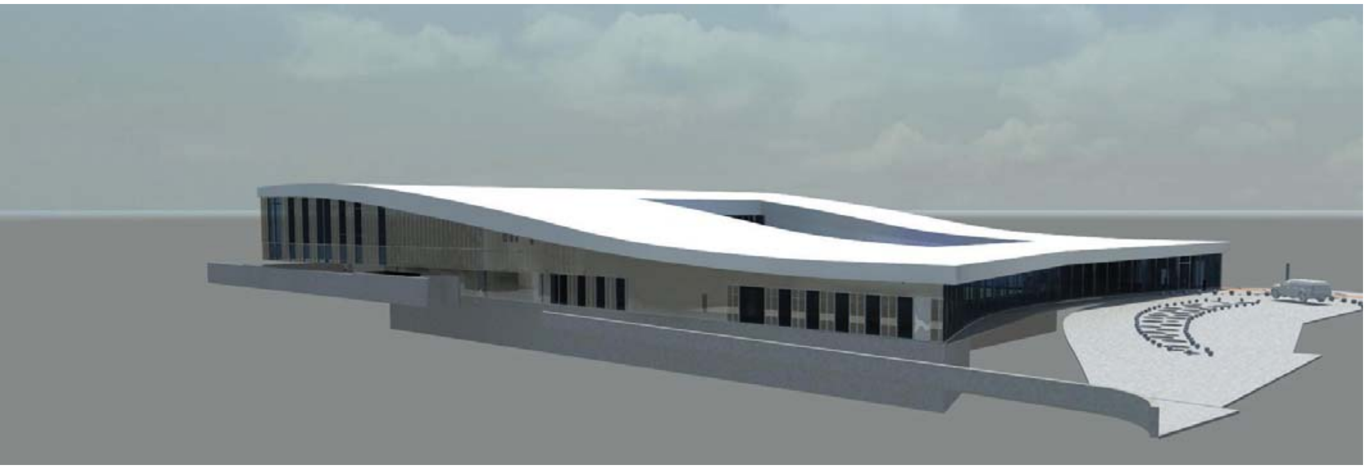
Fresh start

Green Elementary School, Chesterfield, Mich., is a 70,000-square-foot facility that will be constructed on property behind the existing elementary school. The project broke ground in March 2008 and is slated for completion in August 2009.

The masonry-bearing structure, with a precast concrete second floor and mezzanine, will have a brick facade with ornamental masonry. It will include a gymnasium, cafeteria with stage, kitchen, large media center, literacy library, and classrooms for grades K to 5.

TMP Associates (Bloomfield Hills, Mich.) is the architect, and Barton Malow Company (Southfield, Mich.) is the construction manager.

CONTINUED...



Harris-Stowe State University, Early Childhood Development and Parenting Education Center rendering, St. Louis

Mixed-use facility


Portland State University, Academic and Student Recreation Center rendering, Portland, Ore.

Portland State University's new Academic and Student Recreation Center (ASRC), Portland, Ore., is a mixed-use complex bound by a new transit mall and MAX, Portland's light-rail system. It is situated at the center of the Portland Streetcar and downtown bus routes. Each facade reflects the varied uses within the facility by responding to their different solar orientations and urban context.

The ground floor will house retail storefronts and restaurants. The upper floors, in addition to the recreation complex, will house the university's School of Social Work, a new auditorium, general classroom space and the offices of the Chancellor of the Oregon State Board of Education. It also will house the City of Portland Archives.

Project costs will be covered by state-authorized bonds, student recreation fees, retail lease fees, university allocations and fees from the City of Portland, the Portland Development Commission and the Oregon University System.

The project is seeking LEED silver certification. Water-efficient systems will reduce the building's water use by 50 percent. Its energy performance will exceed code by 35 percent. Reflective and green roofs will reduce urban heat islands in the summer, and capture and retain natural heat during the winter.

The architect is Yost Grube Hall Architecture (Portland, Ore.).

Health education


San Diego Mesa College, Allied Health Building rendering

The first teaching facility to be constructed at San Diego Mesa College since its opening in 1964 is underway and scheduled for completion in August.

The three-story Allied Health Building is a $20 million project that will include a computer lab, classrooms, a clinical dental lab, physical-therapy lab, medical lab, and faculty and staff offices. Situated at the college's main campus entry, it will serve as a prominent landmark for the college.

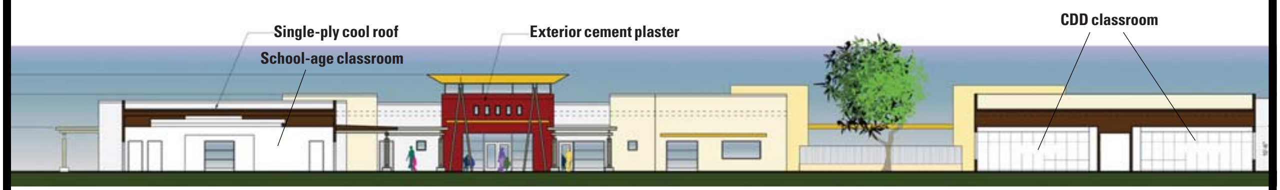
It was important that the exterior design reduce the vertical emphasis of the tall building by incorporating multiple horizontal design elements. This includes a continuous ribbon window curtainwall system with integral horizontal window eyebrows that play a significant role in shading the glass and reducing the amount of internal solar gain inside the building.

Another important design element is the introduction of stone cladding on the more powerful vertical elements such as stairs and entry areas. This will be the first building on campus to use stone elements on the exterior.

The architect is Architects | Delawie Wilkes Rodrigues Barker (San Diego). McCarthy Building Companies, Inc. (San Diego) is providing construction services.

Continued...


Nearly 800 commercial carpet styles feature EPP-certified Antron® fiber – each one enduring and beautiful, and all tested to meet our demanding performance standards. You can count on it. With facts. With action. With carpet that lasts.
Visit antron.net/url for a list of available styles and to discover our Facts in Action.
say [DO]™
FACTS IN ACTION
[PERFORM]
Featured carpet: Line Dance by Monterey
SCS Environmentally Preferable Product
Antron® carpet fiber
Antron® is a registered trademark of INVISTA. © INVISTA S.à r.l. 2008. All rights reserved.
Circle 107 for more information ■ freeproductinfo.net/asu



Los Angeles Valley College, Child and Family Complex

Child and family complex

Los Angeles Community College District broke ground on Los Angeles Valley College's $11.2 million, 26,000-square-foot, three-structure Child and Family Complex in August 2008. It is the first and only complex in the district that will house three child development-related divisions under one roof. Once complete in winter 2009, the complex will include a new Child Development Center (CDC), Child Development Department (CDD) and Family Resource Center (FRC).

"This is a wonderful resource for our students and our community," says Susan Carleo, president. "This facility will provide our students with a unique learning experience, and our community with a focal point for childcare resources."

The CDC and CDD complexes will house distinct functions, but they have a strong commonality in the development of young children. This working synergy is reflected in the layout of the site; each area will have its own separate entrance and facilities, but together form a protected courtyard for the children.



The new FRC will focus on training early-childhood workers and provide family support services for students, staff, faculty and community families with young children. The CDC will serve about 192 children from newborn to school age.

The Child and Family Complex is part of the college's $270.4 million in bond construction monies to modernize, upgrade and renovate the campus.

The architect for this project is Carde Ten Architects (Santa Monica, Calif.).

Graduate student housing

Emory University, Atlanta, will complete its $27 million graduate student housing complex in time for the fall 2009 semester. The 398-bed, 201-unit building is on university-owned land that is on long-term ground lease to Campus Apartments, a student housing company, which will privately finance, develop and operate the project. The building will consist of 1-, 2- and 3-bedroom rental units.



Emory University, Graduate Student Housing Complex, Atlanta

The university approached Campus Apartments as a potential partner for this project based on its reputation for executing public-private partnerships successfully.

"This has been a partnership in the truest sense since its inception," says Mike Mandl, executive vice president for finance and administration. "The team at Campus Apartments has been both flexible and creative in both the design of the complex and the structure of the deal. This complex will be a great addition to the Emory community and a very popular housing option for our graduate and professional students."

The architect for this project is Qb3, LLC (Philadelphia). ■















product spotlight

ADVERTISEMENT

Healthy, Green and LEED® School Window Replacement Systems

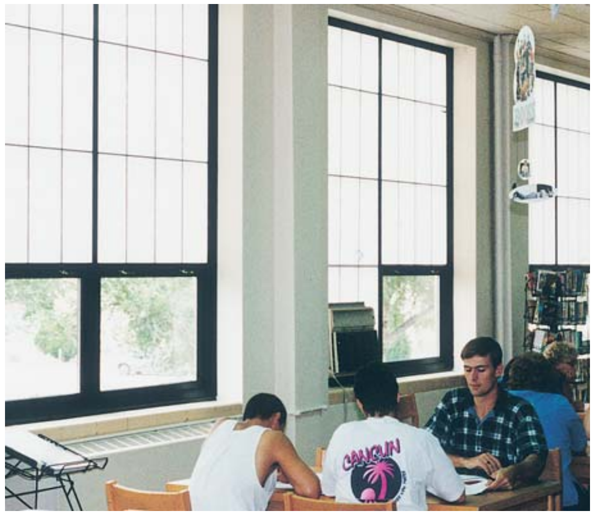
Kalwall Corporation's unique, glare-free daylighting creates a better place to learn—with safety and security built in.

Aging school buildings face the ongoing challenge of increased maintenance expenses and poor energy performance. High on the list of issues in classrooms is the building's fenestration systems. Kalwall Window Replacement Systems are more than 300 percent more efficient than insulated glass, and their unique, highly insulating, diffuse-light-transmitting technology has become the system of choice for schools in virtually every climate.

More than 50 years of research and development, product improvement and innovation have positioned Kalwall as the standard-setter in school window replacements. The heart of the system is the Kalwall translucent insulated panel—a structural composite sandwich panel formed by permanently bonding specially formulated translucent fiberglass sheets to a grid core of interlocked, structural I-beams. The face has an innovative weather-resistant, low-maintenance composition that is shatterproof, maintenance-free and highly vandal-resistant. System options include high-performance sash units, translucent and opaque panels, opening glass windows, louvers and spandrel panels.

Energy efficiency is inherent in the translucent structural sandwich panel design invented by the company in 1955. The panels are infilled with various densities of specialized translucent insulation during the manufacturing process. U-factor options range from 0.29 to 0.05 Btu/hr/ft^2/°F (R-3 to R-20) for the 2¾-inch panels as tested and/or computer modeled according to NFRC-100 procedures endorsed by the Department of Energy. The ultimate in energy efficiency and condensation control is achieved in the optional thermal-break systems. The thermal insulation is a full 1¾-inch thick compared with less than ½-inch of insulation offered by the best of other manufacturers. Savings in heating and cooling costs are realized, and a rapid payback is achieved.

Kalwall has been featured in many LEED-accredited buildings, contributing points in five separate categories. And Kalwall+Nanogel®, a recent Kalwall innovation, pushes energy efficiency even further. By infilling the panels with translucent aerogel, the most insulating, diffuse-light-transmitting technology available today, R-20 insulation (U=0.05) is achieved with 20 percent light transmission.



Shatterproof, maintenance-free and highly vandal-resistant, with rapid energy-savings payback.

The systems are factory-prefabricated, pre-finished and rapidly installed from inside or outside a building at significantly lower installation costs. School window replacements often take place with classes in session with minimal disruption. Kalwall is renowned for its quality of balanced, glare-free daylighting. There is no need for curtains or window shades. Blackboards and computer screens are free of glare in classrooms featuring Kalwall. Visit Kalwall.com or daylightmodeling.com for more information. ■

Circle 150 for more information ■ freeproductinfo.net/asu

OUTLOOK 2009

What's ahead for education facilities and business in the new year and beyond.

BY MIKE KENNEDY

Change is coming.

For schools and universities, that's a safe prediction every year, but it's even more likely in 2009. Economic uncertainty is raising anxieties, tax coffers are dwindling, and budgets are collapsing, but the educational needs of students are just as urgent as ever.

Most education administrators will find it difficult to maintain the status quo, let alone find the resources to pursue innovations or expansions that can improve learning for students. Instead, they will have to make painful decisions about which programs and projects to cut, which jobs to eliminate, which facilities to close and which construction and renovation plans to put on hold.

At the same time, a change is coming in the relationship that the federal government has with local school districts and higher-education institutions. A new presidential administration and a new education secretary will take the reins of power and chart a revised course for education reform.

That could result in modifications to the No Child Left Behind Act, President George W. Bush's program that aimed to improve the American education system. President Bush and his supporters say the legislation has helped improve education and has made schools more accountable for their performance. Critics of the law say it has been underfunded, its provisions place too much


TURN TO CLEAR VISION
QUARTERS ONLY
25¢
U.S. Manufactured and Distributed by
THE TOWER OPTICAL COMPANY, INC.
TO OPERATE
LONG RANGE BINOCULARS
1 DROP COIN IN SLOT
2 PULL HANDLE DOWN ALL THE WAY-LET GO
3 TO CLEAR VISION-TURN RED KNOB



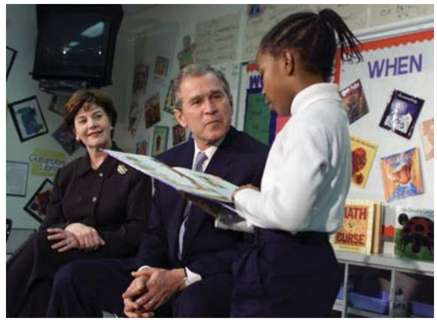
emphasis on testing, and its sanctions against struggling schools are too punitive.

President-elect Barack Obama's campaign platform called for greater funding of No Child Left Behind, less reliance on standardized testing, and an accountability system that focuses more on supporting schools and less on punishing them.

Of course, those campaign promises were crafted before the dire state of the nation's economy became clear in weeks before the 2008 election. Those involved in education were hopeful that school-related issues would claim a place of prominence in the dialogue between Senators Obama and John McCain, but the cratering financial markets, the teetering state of the automobile industry and the increasing numbers of unemployed—not to mention the continuing military presence in Iraq and Afghanistan—kept education reform on the periphery of the presidential campaign.

Those same economic emergencies are certain to take priority at the outset of the Obama administration, and the economic actions carried out in the coming months will help determine whether schools and universities will have the resources to provide facilities and programs that offer effective instruction to the nation's millions of students.

And while decisionmakers in Washington, D.C., and state capitals work to navigate their way through economic troubles, administrators at schools and universities in 2009 will be expected, as always, to tackle the array of issues that confront them day in and day out—making sure they have enough classrooms to accommodate all students; constructing and renovating facilities to provide effective learning environments; ensuring those environments are secure, healthful and well-maintained spaces; providing safe and efficient transportation; and a host of other situations that pop up every day throughout the school year:





Photos courtesy of GeorgeBush.com





Photos courtesy of BarackObama.com

Enrollment

Many colleges and universities may have to deal with two contradictory perspectives on enrollment in 2009. On the one hand, the economic downturn has made it difficult for some students to afford the high tuition costs on many campuses. On the other hand, with the job market bleak, pursuing higher education is a more appealing option for young people, and many schools are reporting record sizes for their 2008-09 freshman classes.

Some examples: the total first-year enrollment at Indiana University in Bloomington for fall 2008 was 7,564—the most ever; the University of Kansas in Lawrence had 4,483 first-time freshmen attending classes in the fall; The University of Colorado at Boulder reported a freshman class of 5,833.

Community colleges, many of which offer job retraining opportunities for displaced workers and generally are less expensive than four-year institutions, have seen their enrollments climb as well.

Even before the recession, government projections showed that enrollment in higher-education institutions was expected to climb over the next decade. The National Center for Education Statistics' "Projection of Education Statistics to 2017" forecasts that enrollment in two-year post-secondary schools will rise from 6,225,000 students in 2006 to 7,068,000 in 2017. At four-year institutions, the report projects a rise in enrollment from 6,955,000 students in 2006 to an estimated 7,874,000 in 2017.

At the K-12 level, the national trend is for slight increases in enrollment—10.1 percent from 2005 to 2017, the government projections show. But when the figures are broken down by region, they show a wide disparity. States in the South are projected to see a 19.1 percent increase from 2005 to 2017, while Northeast states are projected to see an enrollment decline of 3.5 percent. In the West, Arizona is projected to have a 44.8 percent increase, and Nevada's projections show a 43.2 percent rise.

The enrollment decline in many large urban districts is forcing many school boards to close underutilized campuses.

Six schools in the Indianapolis district have been targeted for closing at the end of the school year. The Prince George's County (Md.) budget proposal calls for shutting down six schools in 2009. Seattle district officials have put forth a list of nine schools that are candidates for closing. The Pinellas County (Fla.) Board has voted to close seven schools in 2009. In Denver, traditional schools in underused facilities will begin sharing space with charter schools.

Continued...



Outlook 2009

Construction

Despite the relentlessly pessimistic news about the nation's finances, school construction proposals fared surprisingly well in ballot initiatives in 2008.

In New Jersey, 60 percent of the school bond proposals put before voters in 2008 won approval, according to the New Jersey School Boards Association. However, smaller requests were more successful; only 40.2 percent of the funds requested in bond elections were approved.

In November, just in California, three school districts and a community college district each won approval of construction proposals in excess of $1 billion: a $7 billion request in the Los Angeles Unified School District; a $3.5 billion proposal in the Los Angeles Community College district; a $2.1 billion package in the San Diego Unified School District, and a $1.2 billion plan in the Long Beach Unified School District.



School construction proposals fared surprisingly well in 2008.

The success wasn't limited to the Golden State. Voters in Denver passed a $454 million bond proposal; the Wichita (Kan.) district won approval of a $370 million package; the Lexington 1 (S.C.) district persuaded voters to back a $336 million request; Round Rock (Texas) district voters authorized a $294 million building proposal; Indianapolis voters approved a $278 million plan.

Earlier in the year, districts in Texas approved huge bond proposals: $1.35 billion in Dallas; $697 million in Lewisville; $647 million in Klein; $526 million in Conroe; $490 million in Plano.

Some school districts were scared away from the ballot box by the bad economy. The Clark County (Nev.) District, the nation's fifth-largest system and still growing steadily, had a $9.5 billion building plan ($7 billion in bonds, and $2.5 billion in hotel and real-estate transfer taxes) that it wanted to put before voters in November 2008. However, in July, board members decided the request faced an uphill battle and pulled it from the ballot. The district is expected to come back to voters with a proposal in 2010.

The stakeholders in each district have to decide whether 2009 will be the right time to pursue construction through a tax election. The Tacoma (Wash.) district has placed a $300 million request on the ballot in March; that same month, the Henry County (Ga.) district will ask voters to approve a $256 million construction plan.

Additional help for schools that need to build and renovate their facilities may come from what, until recently, has been a reluctant source of construction funds—the federal government. Officials in the incoming Obama administration have specifically mentioned school construction as the kind of projects that would be key parts of the economic stimulus package that Congress is expected to

consider soon.

Such projects would provide construction jobs and inject spending into local economies, and they would result in more appealing and effective learning environments for students.

Congress already has taken steps to become more involved in improving education facilities. In 2008, the U.S. House passed legislation that called for spending $6.4 billion in fiscal 2009 on school renovation and modernization. The Senate took no action in 2008 on the bill, the 21st Century Green High-Performing Public School Facilities Act, but lawmakers may consider it again in 2009.

Because of ongoing economic troubles, schools and universities that embark on construction projects should make sure the money is being spent wisely and that their constituents have a clear understanding of the purpose of any upgraded facilities.

"People say if we're going to spend our tax money, we want to get a return on our investment," says Dennis Young, president of Wm. B. Ittner, an architectural firm in St. Louis. "We have to be extremely sensitive listeners."

Administrators and designers can increase the likelihood that taxpayers will embrace a project if they are kept informed and their opinions are considered.

"We try to ascertain what the community is thinking much more than ever before," says Young. "When you're trying to pass a referendum, you don't want people saying, 'You only talk to me when you need something.'"

With fewer construction projects on the market, schools and universities can seek out the best firms to design and build their facilities, Young says. Institutions also are in a position to demand use of durable, sustainable materials that have an "economic payback" over the life of a facility.

Because of the economic downturn, the trend of finding partners or joint tenants for a facility shared by schools and the community makes more sense than ever.

CONTINUED...

Visit Schoolhouse Beat: The Blog
at ASUmag.com to comment on this year's outlook.



The economy

As 2008 drew to a close, scarcely a day went by without another gloomy report on the nation's economy: investment firms and banks going belly up; credit markets in shambles; the once-vibrant auto industry begging for billion-dollar bailouts to survive.

The recession hasn't relieved schools and universities of any of their responsibilities, but it has deprived them of the resources they need to carry out their main responsibility: preparing the nation's children to be wise and productive members of the workforce and society.

Average per-pupil spending in public schools was $9,138 in 2005-06, according to the U.S. Census Bureau. By 2017-18, the average per-pupil cost is projected to climb to between $10,762 and $12,212.

But in 2009, at least, the money needed to pay for the expected rise in education costs is hard to find. School districts, universities and colleges from coast to coast face budget shortfalls because of declining tax revenue and cuts in state funding.

In December 2008, in "The Fiscal Survey of States," the National Governors Association and the National Association of State Budget Officers found that in fiscal 2008, state general fund spending grew by 5.3 percent, which was less than the 31-year average of 6.3 percent. The news for fiscal 2009 was worse—state spending is expected to decrease by 0.1 percent.

"This substantially lower rate of growth is the result of a weakening economy," the report's executive summary states. "States are forecasting declining economic growth and expect to make significant budget cuts in the coming fiscal years."

Because so much of state funding goes to K-12 schools and higher-education institutions, districts and colleges are having to bear the brunt of the budget shortfalls.

In addition, large universities that have bolstered their fiscal position by building donations into sizable endowments are seeing the value of those funds shrink as stocks plummet in value. Yale University in New Haven, Conn., reported at the end of 2008 that its endowment was valued at $17 billion and had declined in value by 25 percent since June 2008. Yale President Richard Levin stated in a letter to university employees that the decline "has a very significant impact on our operations because income from the endowment supports 44 percent of the University's annual expense base of $2.7 billion."

Levin announced spending cuts and freezes in several areas. With regard to construction, buildings and renovation projects already under construction will be completed. But most other projects will be delayed "until the conditions in debt markets permit going forward or additional gift funding can be secured."

"We will also continue both design and fundraising for the new residential colleges with the hope that we can keep to the current schedule, but postponement may become necessary," Levin wrote in his letter.

School districts also must absorb the economic pain passed on by cash-poor state governments. Many have curtailed spending and cut programs to keep their budgets in line. For others, the current economic conditions have crippled what already was a struggle to survive. The financial difficulties of Detroit's Big Three automobile industry have been front-page news, but the condition of that city's school system is almost as dire. The Detroit school system has closed many campuses

in recent years as its enrollment has dropped steadily. This fall, the district disclosed that it was facing a deficit of more than $400 million. The school board fired the superintendent it hired 18 months earlier, as well as the district's chief financial officer. As the year ended, the state superintendent of public instruction was trying to decide if he would intervene and take over the school system's finances.

In the short term, financial help for schools and universities may be on the way in the form of an economic stimulus package that the Obama administration is preparing to bring before Congress soon after the Jan. 20 inauguration. The incoming administration had not settled on the extent of the spending proposal, but some political observers say it could ask for as much as $1 trillion. It is expected to include projects for upgrading the nation's infrastructure, including school facilities.



Continued...



OUTLOOK 2009

Transportation

Anyone who has experienced the volatility of gas prices in recent months would be hesitant to forecast what will happen with fuel prices in 2009. The American School Bus Council estimates that the nation's school bus fleet uses 822 million gallons of fuel a year, so the roller-coaster climbs and dips in prices can leave transportation officials a little queasy.

In mid-2008, with gasoline prices cresting above $4 a gallon, fuel prices were wreaking havoc on school budgets. Now as schools welcome students back after winter break, those prices have been cut by more than half, but because of the shaky condition of school budgets, administrators would be wise to continue to search for ways to trim their transportation costs.

In the Orange County (Fla.) district, officials tried to squeeze more out of its transportation budget by starting high school later and middle school earlier. The switch enabled the districts to run routes more efficiently, and officials were hoping they could save as much as $15 million in capital and operating costs.

But the outcry from parents and students who did not like the schedule switch wore down the school board, and it has decided to return to the old schedule in the 2009-10 school year. That means the district will have to look at other ways to trim its budget, and that could mean cutting transportation, as many other districts have done.

In the San Marcos (Calif.) Unified School District, the board voted last spring to eliminate bus transportation, which provided daily rides for 2,700 students. Many other districts have curtailed service or imposed fees for bus rides, when the law allows. Slashing bus service can relieve the burden on education budgets, but when bus-less students live where it is too far or too dangerous to walk to school, the environment can suffer.





The bus council says that when one bus route is eliminated, it takes an average of 36 cars to transport the students who rode that bus. That's a lot of additional exhaust spewing from tail pipes.

Many schools are encouraging students to walk to school when conditions permit, and several districts have converted some of their bus fleet to biodiesel or other hybrid fuel systems that reduce energy costs and release less pollution into the air.

CONTINUED...



Class size



The money crunch may lead many school districts to take another look at class sizes in 2009. Many states and local districts have adopted class-size limits or guidelines for the maximum number of students in a classroom. Studies have indicated that students learn more effectively and teachers perform better when there are fewer students.

However, reducing class size has a clear cost—fewer students mean more teachers, which means more salaries to pay. So as schools across the nation are confronted with dismal financial futures and projected deficits, administrators may be tempted to ease the rules that govern class size.

Many states and local districts have begun to look at increasing class size as a way of finding budget savings. Georgia Gov. Sonny Perdue urged the state board of education in October to grant all reasonable requests for waivers from class-size requirements. Education officials in Hawaii were considering a proposal that would save $9.7 million by increasing average class size by one student in grades 3 to 12. The Clark County (Nev.) district was looking at boosting class sizes in primary grades to trim $15 million from its budget.

In New York City, the state department of education found in September that the city did not achieve its 2007-08 class-size-reduction targets, and the further funding cuts that have been proposed by Gov. David Paterson will make it more difficult for those goals to be met.

Energy

For years, environmentalists and conservation advocates have preached to school and university administrators the benefits that can be gained from reducing energy consumption. For those institutions that have not been convinced of the importance of conserving energy, the wobbly state of the economy in 2009 could make the argument for more efficient energy use more persuasive.

Aside from personnel, "education institutions" is the largest item in school budgets, and schools scrambling to deal with reduced revenues and program cuts may want to focus on their energy expenditures for potential savings.

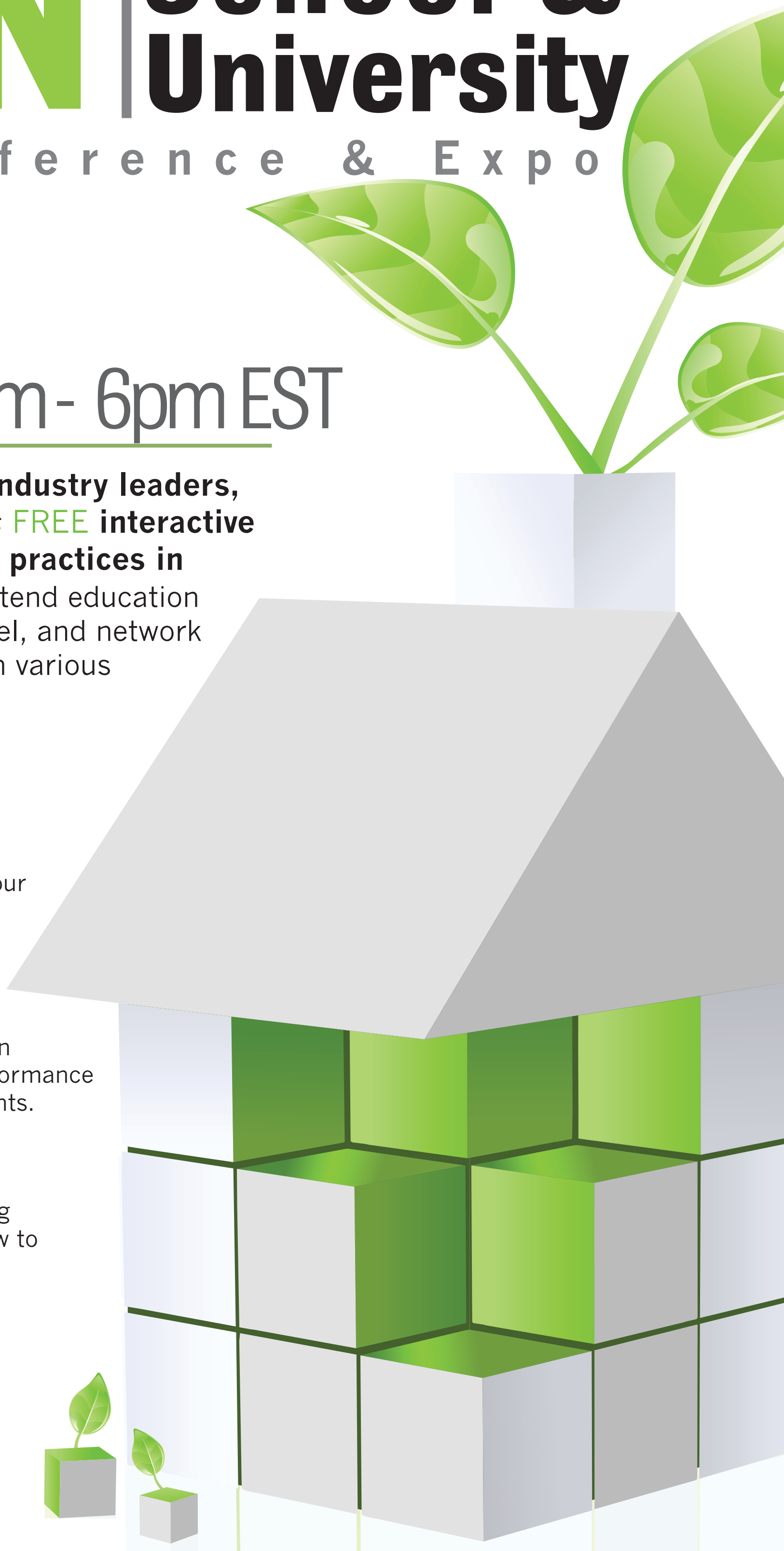
In "School Operations and Maintenance: Best Practices for Controlling Energy Costs," the U.S. Department of Energy says that energy can be reduced significantly by "effectively managing, maintaining, and operating school physical plants, regardless of school age."

Many energy-saving steps available to schools are well-known. Daylighting strategies can illuminate a facility with natural light and reduce a school's expenditures for artificial light. Facilities that are insulated properly can get by with smaller and less costly heating, cooling and air-conditioning systems.

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has put together *The Advanced Energy Design Guide for K-12 School Buildings* to help education institutions build facilities that are 30 percent more energy-efficient than current industry standards.

"By using energy efficiently and

CONTINUED...







Daylighting is one energy-saving strategy.

lowering a school's energy bills, millions of dollars each year can be redirected into facilities, teachers' salaries, computers, and textbooks," the guide states.

The guide specifies eight essential steps to achieving energy savings in K-12 facilities:

•**School district buy-in**. "The more (district leaders and staff) know about and participate in the planning and design process, the better they will be able to help achieve the 30 percent goal," the guide says.

•**Experienced, innovative design team.**

•**Integrated design approach**. Cost-effective, energy-efficient design requires tradeoffs among potential energy-saving features. The greater the energy savings, the more complicated the trade-offs become and the more design team members must work together to determine the optimal mix of energy-saving features.

•**Daylighting consultant**. If the design team does not have experience with a well-balanced daylighting design, it may need to add a daylighting consultant.

•**Energy modeling**. Energy modeling programs that simulate hourly operation of a building and provide annual energy-usage data make evaluating energy-saving tradeoffs faster and far more precise.

•**Building commissioning**. Studies have shown that building systems often are installed improperly and do not operate as efficiently as expected. Building commissioning is a way to ensure that all building systems perform as intended.

•**Training for building users and operations staff**. A building's designers and contractors normally are not responsible for the school after it becomes operational, so the school district must establish a continuous training program that helps occupants, and operations and maintenance (O&M) staff maintain and operate the school for maximum energy efficiency.

•**Monitoring the building**. A monitoring plan is necessary to ensure that energy goals are met over the life of the building. Buildings that do not meet the design goals often have operational issues that should be corrected.

The guide provides specific recommendations based on the eight U.S. climate zones identified by the U.S. Department of Energy. The categories covered include roofs, walls, floors, doors, vertical fenestration, interior finishes, interior lighting and the type of HVAC system.

Continued...

product spotlight

ADVERTISEMENT

Computer Tables for Laptops and Widescreens

The latest thinking in laptop tables, computer desks, podiums and conference tables

Pi™ Collaboration tables nest together to form rows, arcs and study groups with complete freedom. HorizonLine™ tables support laptops and widescreen LCDs arranged in rows and face-to-face groups. Newpath™ Laptop Desks give more aisle and personal space. flipIT® Laptop Safes serve power and data, and provide secure, locked storage. Quark™ Mobile Laptop Tables support sitting, standing and mobility. Use for independent study or in groups, docked together to form a conference table. Conference tables have built-in flipIT® for LCDs or laptops. Perfect for teleconferencing and use with HD cameras. flipIT® provides close-up view of data, so the main HD display can show participants full screen. flipIT® is low profile and does not obscure faces. Go online for complete customer service: request a quote and design services with floor plans, provided without cost or obligation. ■



www.smartdesks.com

Circle 152 for more information ■ freeproductinfo.net/asu



Outlook 2009

New leadership

Public elementary and secondary schools have become accustomed in the last several years to more federal involvement in their efforts to educate children. The transition to a new presidential administration in 2009 is likely to bring changes in that involvement. Local educators are hoping that the federal mandates imposed on schools come with increased funding so the federal standards can be met.



Arne Duncan. Photo courtesy of Chicago Public School District

The most visible sign of change at the federal level is the appointment of Chicago Public Schools' CEO Arne Duncan as the next U.S. Secretary of Education.

Duncan has received mostly positive reviews for his performance as head of Chicago's public school system—the nation's third largest with more than 400,000 students. In addition, as Obama's friend and neighbor of several years, he has a relationship that could give him more influence than other education secretaries have had in recent administrations.

The 44-year-old graduate of Harvard University has been the CEO of the Chicago school system since 2001, when he replaced Paul Vallas. Duncan joined the district in 1998 and served as director of magnet programs and deputy chief of staff under Vallas. Before being hired by the school district, Duncan directed The Ariel Initiative, a program that provides educational opportunities in economically disadvantaged areas of Chicago.

The two congressional committee chairmen with whom Duncan will work to craft education policy spoke highly of the appointment.

U.S. Rep. George Miller (D-Calif.), chairman of the House Education and Labor Committee, says: "As the head of Chicago's public schools, he has an impressive track record in turning around failing schools, increasing graduation rates, and significantly boosting student achievement. He has dramatically improved teacher quality and effectiveness, by working with the local teachers union to establish a performance pay system and by providing mentoring and career ladders for teachers."

U.S. Sen. Edward Kennedy (D-Mass.), chairman of the Senate Health, Education, Labor and Pensions committee, also was enthusiastic about the selection.

"Arne has been a pragmatic and effective leader of Chicago's schools," Kennedy says. "He's brought people together to address difficult challenges and expand opportunities so that every child can succeed. I'm confident he'll be an impressive advocate for (Obama's) education agenda in the coming years."

Even the woman he is succeeding praises his selection.

"Arne Duncan is a visionary leader and fellow reformer who cares deeply about students," says Margaret Spellings, who served as secretary from 2005 to 2009. "As the CEO of the Chicago Public Schools, Arne has advanced policies to hold schools accountable for providing all our nation's students—regardless of race,

income level or background—with a high-quality education."

The coming year is expected to bring about changes in the education reforms that began under President George W. Bush. The No Child Left Behind Act was praised widely when it became law in 2002, but in the intervening years, many educators and local officials have turned against it. Many states have filed suit against the federal government, arguing that the law requires states to carry out certain reforms, but does not provide sufficient funding so that states can meet the mandates.

The call for changing No Child Left Behind was widespread in 2008, but the issue never gained much traction in Congress or during the presidential campaign.

From his perch in Chicago, Duncan has supported No Child Left Behind, but he has called for greater flexibility in the law.

"Congress should maintain NCLB's framework of high expectations and accountability," Duncan told a U.S. House committee hearing in 2006. "But it should also amend the law to give schools, districts and states the maximum amount of flexibility possible."

He also called for more funding for education reform.

"Funding education is simply the best long-term investment Congress can make," Duncan testified. "Money invested now will pay us back for decades …. My challenge (to Congress) is this: double the funding for NCLB within five years."

In his campaign, Obama also pledged to spend an additional $10 billion a year on early-childhood-education programs, and Duncan also is considered to be a strong advocate of early-childhood education.



Obama has many funding changes in mind for 2009.

Continued...



Outlook 2009

Security

One issue that won't fade from the consciousness of school and university administrators in 2009 is the importance of providing a safe and secure environment for students and staff. Each year, education institutions strive to bolster campus safety and mitigate threats that could lead to violence and tragedy.

In 2008, the deadly Valentine's Day attack by a gunman at Northern Illinois University in DeKalb brought back painful memories of the 2007 massacre at Virginia Tech, the worst mass killing ever on a U.S. college campus. At Northern Illinois, a former student with a history of mental illness and armed with several weapons entered a large lecture hall and opened fire into a crowd of students. Six people, including the gunman, were killed, and 18 were wounded.

An emergency-message system alerted students and staff on campus that a shooting had occurred and continued to transmit messages throughout that day to keep people informed of the situation. Many college campuses had instituted such systems following the Virginia Tech massacre. Virginia Tech's response to the 2007 shooting spree was criticized because the school did not alert others on campus in a timely manner about the initial shootings.

Because of the diverse activity on a campus and the wide area that needs to be covered, colleges have sought emergency warning systems that disseminate information through many channels, such as voice mail, cell phones or landlines, e-mail, text messages, campus message boards and loudspeakers.

Horrible incidents such as the Virginia Tech or the Columbine killings in 1999 can prod schools and universities to re-evaluate and update their crisis-managements plans. But many education institutions still display an "it can't happen here" attitude and consequently may be unprepared if an emergency occurs on their watch in 2009.



Communication is key during a security crisis.

In 2008, the Associated Press reported that nearly 10 years after Georgia passed a law requiring school systems to receive state approval of their security plans, about 20 percent of the state's districts had not complied with the law. The law calls for districts to have a plan that addresses acts of violence or terrorism, natural disasters, hazardous materials and radiological incidents.

In recent years, school districts have been able to complement their own security patrols with resource officers, sworn police personnel from local departments that are assigned to schools. Having an officer on regular duty at a school gives him or her the opportunity to develop a relationship with students and staff, and has been credited with preventing incidents and breaking down the wall of suspicion between students and law enforcement.

But as the governments struggle to stay within their shrinking budgets, funding cuts—either by local police departments or the schools themselves—may result in fewer institutions with resource officers in 2009. Several schools lost their resource officers in 2008 because of cutbacks.



In a short time, technology in schools has gone from an exotic rarity to standard equipment. Virtually every U.S. school has Internet connections. Now schools and universities are using broadband and wireless systems to make Internet access faster and more flexible than ever.

Millions of college students each year enroll in distance-education courses, and online courses have grown in popularity at the elementary and secondary level, says a National Center for Education Statistics report on technology-based distance-education courses.

"Rapid technological developments and widespread availability of the Internet in public schools has made online education increasingly accessible and common among schools and districts," the report's executive summary states. "Also, although postsecondary institutions are the leading providers of technology-based distance education to public school districts and schools, districts themselves increasingly provide technology-based distance education courses to students."

As educators see the opportunities for learning that take place outside the formal confines of a classroom, the ability to gain access to information at any time or place enables students and teachers to seize the moment when inspiration strikes.



Many schools now have mobile carts of wireless-enabled laptops that can be rolled from classroom to classroom, freeing up teachers and students whose technology schedule had been bound to a rigid computer lab schedule. Online digital textbooks enable students to have access to their course materials wherever they have Internet access. Digital textbooks also lighten the load in student backpacks, which can become so heavy they create health risks.

Other high-tech gadgets are enhancing students' opportunities to learn. Interactive whiteboards enable instructors to display material prominently for students to see. Students or teachers can use a pen or even a finger to add data to the display, which can be saved on a computer. Personal responders, also known as clickers, are another way to boost student participation in class activities. The devices are given to each student in a classroom so they can respond to questions. The students' answers to these "instant polls" are compiled immediately and can be displayed graphically or stored for subsequent review.

This generation of students increasingly views technology such as cell phones, iPods and mp3 players, You Tube videos and social networking sites as a routine part of their lives, and schools and universities are learning how to incorporate those technologies into their education strategies.

But educators have to be cautious as they venture into untested areas. As 2009 began, the Madison (Ohio) School Board was debating whether it should prohibit text messaging between teachers and students. The question arose after a coach and teacher was fired and subsequently sentenced to three years in prison for a sexual crime that was discovered when an adult reported the coach had been inappropriately text messaging a girl.

Some board members believe texting from teachers to students is inappropriate and unnecessary, given the other avenues of communication that are available. But others argue that text messages are a legitimate, convenient and increasingly popular way to communicate, especially for students.

CONTINUED...



Outlook 2009

Sustainability

With the transition to a more environmentally friendly president and administration in 2009, the momentum for sustainable design and construction of school facilities is likely to continue.

Many states and local districts have enacted design and construction guidelines that require environmentally friendly and energy-efficient systems and operations. Organizations such as the U.S. Green Building Council, which administers the Leadership in Energy and Environmental Design (LEED) certification program, and the Collaborative for High-Performance Schools (CHPS), which also has a green building rating system, have made great strides in bringing the terms green building, high-performance schools and sustainable design into the mainstream of the education community.

As of December, the green building council had a list of more than 1,000 school construction projects that had registered their intent to seek LEED certification. Many of those green schools will be completed in 2009, and more are sure to be added to the list.

Congress provided another impetus for green school construction in 2008, when the House passed the 21st Century Green High-Performing Public School Facilities Act. The Senate did not take action on the bill, and President Bush threatened to veto the measure, but if lawmakers take up the legislation again, it is expected to win a more favorable response from an Obama White House.

In addition to calling for an infusion of federal money for school construction—$6.4 billion in the first year and more than $20 billion over five years—the bill outlined specific requirements for incorporating green design and construction into the federally subsidized projects.

In the first year of funding, school systems would have to spend at least 50 percent of the money they receive on green facility projects. The requirement would increase by 10 percent each year; by the fifth year, schools would be required to spend 90 percent of the money from the bill on green projects.

The bill defined green projects as ones that "are certified, verified, or consistent with any applicable provisions" of established green and high-performance programs, such as LEED, CHPS, the federal government's Energy Star program, or equivalent programs adopted by states or local entities.

On the university level, the green movement also is flourishing. More and more campuses are adding sustainability directors to their staffs to show their commitment to improving conservation and environmental awareness.

More than 600 presidents of U.S. higher-education institutions have signed the American College & University Presidents Climate Commitment that calls for administrators to take steps to reduce greenhouse gas emissions and make their campuses carbon-neutral. ■

Kennedy, staff writer, can be reached at mkennedy@asumag.com.

WEB 101

Have something to say about this article? View the January issue online at ASUmag.com, and leave a comment at the end of the article.



A layered security approach is most effective at education institutions.

Emerging Trends

Technology can address evolving security needs on campus.

By James R. Black

The campus security standard of care continues to evolve. Technology plays a more important role than ever before, and manufacturers want their equipment to become the solution of choice at education facilities across the nation. Campus administrators need to know more about these security technologies and how they might fit into a campus security program.

Safe and secure

Three trends are emerging in education security:

•**Intelligent video analytics.** This technology finally is realizing its promise. For many years, education institutions heard the promises, saw the trade show demonstrations, and in some cases deployed "beta" systems to gauge the security and safety

enhancement possibilities of these advanced video systems.

Unfortunately for those early adopters, the promise didn't come close to justifying the hype. Initially, these "military-rooted," processor-heavy applications were designed for government entities not concerned about price, complexity or false-alarm rates. Expensive and difficult-to-maintain systems, combined with well-publicized test failures, seemed to do more harm than good and created an unfortunate perception in the industry about the viability of video analytics.

But the industry has undergone a virtual makeover. Competition among a number of emerging manufacturers, combined with maturing technology, has resulted in significantly lower prices. Legacy manufacturers have applied the lessons learned over a number of product generations to improve the accuracy and functionality of their products. Systems now offer more "a la carte" options to suit a particular application, and schools no longer are forced into a bundled suite of detection sets at a fixed cost.

Analytics now can be deployed using either a centralized or decentralized model—whichever is appropriate for the application and resources. Cameras from a number of manufacturers now can be ordered with specific analytic features or a combination of features built in directly. Cameras often are loaded with an entire suite of password-activated features so that detection features can be upgraded remotely via software.

Systems now have advanced and easier-to-use learning modes and masking features to facilitate better system tuning. This reduces nuisance and false alarms to a manageable level. Analytics systems that not long ago cost $3,000 to $5,000 per camera while using intense server-processing resources now cost a few hundred dollars per camera or less and can include many essential features.

Security systems commissioning: An old trick for your new dog

Sophisticated, software-based security systems can provide powerful tools to support campus security. By nature, such systems are flexible, with many capabilities that can help manage the process of physical protection. However, the full potential of these systems can be overlooked because of unfamiliarity with the products, weaknesses in security planning, and constraints associated with the design and construction process. Commissioning ensures that security systems are designed, installed, functionally tested and capable of being operated and maintained according to an education institution's real operational needs rather than what the manufacturer's user manual prescribes.

Traditionally, security installations require a level of testing called "final," "functional" or "acceptance" testing as the last requirement for completion of a project. Most of these requirements only scratch the surface of system capabilities and usually do not involve performing simulations of actual security incidents, and adapting systems programming and operational protocols to account for the results of these tests. The complete commissioning process goes further in seeking to guarantee that a system operates properly, that it properly addresses campus vulnerabilities, that it can be supported adequately in the future, and that it can be used effectively by staff members.

This is especially important where sophisticated systems interact with one another, such as with access control, intrusion, video, fire alarm, electrified locking and elevator-control systems. In addition, operating and maintenance improvements can be realized when stakeholders are cognizant of the goals of a system, its performance and operational boundaries, and the methods and quality of the initial installation.

Ultimately, a more thorough series of program-validation exercises during a burn-in period enhances customer satisfaction by verifying that systems operate as effectively as possible, and ensures that security concepts have been integrated properly and usefully into the final product. An enhanced commissioning approach can help protect the security investments and develop confidence in security technologies deployed throughout a campus.

For traditionally open and unrestricted education environments, closing access to campus facilities during an emergency or security incident has been a tough challenge.

The University of Southern California (USC), for example, has deployed the latest-generation intelligent video analytics to improve incident detection, assessment and response. The campus is using video analytics to extend the reach of public safety staff in areas where undesired activities might occur.

•**Mass notification.** Keeping students, staff, faculty and parents informed in a crisis and maintaining a sense of order is high on everyone's list of priorities. Here again, the

industry push for solutions has overshadowed some of the reality and limitations of some technology-interdependent applications. E-mail and text messaging are so ingrained in our daily lives that their application as universal saviors in a crisis seems on its face to be sound judgment.

Real-world realities, however, have shown us that for larger institutions at least, there are fundamental flaws in an approach relying on only one or two notification technologies. The logistics of maintaining massive lists of high-turnover populations has proven to be a bigger challenge than anticipated. Sending tens of thousands of e-mails or text messages at once has overwhelmed systems and caused embarrassing delays. In extreme cases, alerts have been received many hours after an incident has concluded and media reports have been disseminated. Fundamental misperceptions about the capabilities of certain systems occur regularly and sometimes result in an incomplete emergency-notification strategy.

The good news is campuses are reevaluating their notification systems and replacing insufficient systems with more robust and flexible services. New purchasers of notification systems should take advantage of the lessons learned by early adopters. The clear trend is to focus on a multi-mode system strategy that incorporates high-tech, low-tech and no-tech solutions into a notification plan. Text messaging still remains an important component of the alert program, but comprehensive solutions also include radio, television, audio paging, instant messaging, phone calls, digital message boards, improved and continual awareness training, and even old-fashioned emergency lights and sirens.

One emerging technology that might ease the performance problems associated with cell-phone messaging is cellular broadcasting. Instead of needing to acquire and maintain massive user lists, cellular broadcasting allows for transmitting a message simultaneously to anyone near a particular cell tower. This technology greatly reduces drain on network resources and could boost performance and system effectiveness significantly.

•**Building perimeter control**. For traditionally open and unrestricted education environments, closing access to campus facilities during an emergency or security incident has been a tough challenge. Campus public-safety officials for some time have struggled to lock down buildings quickly. Some campuses still use antiquated and inefficient phone trees, relying on land-line phone calls to individual departments to instruct users to close and lock facility access doors manually, one building at a time. Once an all-clear is issued, an equally tedious reverse process is required to return facilities to their normal state. Procedures like this are inefficient and may put staff members at risk.

The trend at campuses is to upgrade traditional locks around the building perimeter with electrified locks that are connected to a centralized system. At USC, "perimeter" doors can be anywhere from the basement up to the third floor, depending on site elevation, exterior stairs or connection to nearby structures. When these perimeter door locks are connected to an access-control system, an authorized person could initiate "one-click" locking of a building, a series of buildings, or even an entire campus at the touch of a button. Such a system can automate this process further by attaching pre-determined actions to a specific threat level so that when the campus or building threat level is raised, buildings will lock automatically and be placed under the auspices of the access-control system.

The locks also can be put on a time schedule so that all or part of the campus can be secured or opened automatically at different times. The system can keep doors unlocked, allowing free access, or have them locked so that a campus ID card is needed for entry. Some campuses are moving toward the "keyless campus" approach in any case, with electronic locks and proximity or smart cards to control access.

A proximity card system is not necessarily required to accomplish remote lockdown capability, but moving to an electronic card might reduce or eliminate the systemic manual key-control issues facing many campuses, and give campus security a critical tool in their incident-response tool kit. ■

NOTABLE

41 Percentage of K-12 schools that plan to add access-control card systems to their security systems.

54 Percentage of colleges/universities that plan to add access-control card systems to their security systems.

Source: 2008 School Security Survey, American School & University/Access Control & Security Systems, *July 2008.*

Black, CPP, PSP, CSC, CET, is a senior security consultant and operations manager for TRC Solutions' Irvine, Calif., office. He is a member of the Association of Threat Assessment Professionals (ATAP), ASIS and the International Association of Professional Security Consultants. He can be reached at jblack@trcsolutions.com.

WEB 101

For more articles on security and life safety, visit the article archives at ASUmag.com.



Lucrative Partnerships

Affinity marketing is an effective fund-raising strategy for education institutions.

By Stephen Halliday

The economic debacle of September 2008 left in its wake major economic losses at both corporate and personal finance levels. Equally disturbing, a looming economic uncertainty ensures this: fund-raisers will need to work even harder and smarter to capture dollars.

Although higher-education institutions have a track record of weathering these storms better than many other non-profit organizations, fund raising will be more challenging for colleges and universities. In addition to becoming better informed about market conditions and trends affecting their development efforts, development officers and their teams need to adopt strategies that will

enable their supporters to continue contributing.

Slower growth

The July 15, 2008, issue of *Inside Higher Ed* reported that, based on a Council for Advancement and Support of Education (CASE) forecasting tool, "giving to schools and colleges will increase by 5.3 percent over the next year, representing overall growth, but given weaker economic conditions, below the 7 percent average annual growth rate over the last 20 years."

This finding predates September 2008, when the nation suffered its worst economic crisis since the Depression. It's a fair assumption that in the near future, contributions will be down. As if that's not enough incentive to seek out new fund-raising strategies, consider the increasing competition for contributions. In 1994, there were an estimated 500 U.S. registered public charities; today that figure exceeds 1,000, according to the National Center for Charitable Statistics (NCCS). If you consider the total of all tax-exempt organizations, the NCCS places that figure at 1.48 million. With increasing competition and decreasing contributions, education fund-raisers need other ways to attract support for their schools.

Marketing lessons

In affinity marketing, a non-profit organization partners with a for-profit organization. When the non-profit or its supporters purchase a product or service from the affinity marketing partner, a portion of the proceeds from the sale are returned to the non-profit. If the product or service is an everyday item that most consumers and businesses use, the partnership can be lucrative.

For instance, imagine if half of your alumni bought their wireless phone service from an affinity marketing partner. Every time those former students used their phones, a portion of the call proceeds would be given back to the school. The percentage of the sale give-back can be as high as 10 percent. Now, imagine if a percentage of the other individuals in your development database and a percentage of the local businesses that support the school also buy their wireless phone service from that partner.

The benefit for the education

institution? Funds that can help pay for a new athletic center, science lab, theater or high-tech classroom.

Other commonly used products or services that are ideal for affinity marketing partnerships: computers, other telecommunications products or services (e.g., long-distance phone service, Internet service), cable television, credit cards and office supplies.

Partnering criteria

To ensure a successful affinity marketing partnership, seek out partners that demonstrate certain key traits:

•**Shared values**. First, a partner should value the institution's mission and genuinely want to see goals achieved. That may sound like a platitude, but it isn't. Real affinity marketers often have missions that mirror that of their customers. Instead of simply selling products and services for a profit, they want to be a part of the non-profit community because they, too, share the "giving back" philosophy. In addition to giving a portion of their profits to their customers, many also have vibrant volunteer initiatives, are members of various non-profit organizations, and regularly participate in the fundraising and awareness-building events of local schools, museums, charities, churches and missionaries.

•**Strong commitment to customer service**. The last thing schools want to do is to compromise their relationships with valued alumni, corporate supporters or individual philanthropists by linking themselves with an affinity marketing partner that does not provide a quality product or good customer service. An affinity marketing partner should offer high-quality, reputable-brand products and services with solid performance features backed by strong product warranties and customer-service policies. A company's customer-service philosophy can be evaluated by asking simple questions such as:

-What training programs are in place for your customer-service representatives?

-Is there a call center for questions or technical support?

-What type of technology do you use to monitor customer inquiries and services?

An affinity marketing partner should provide an assuring response to each of these questions. The partner also should have customer-service representatives that are trained in products and services, as well as customer-service policies and procedures. Continuing education should be a priority. The partner's call center also should apply modern technologies, as well as customer relationship management (CRM) software that enables representatives to access customer information on a real-time basis while on the phone with customers, and facilitates order entry, maintenance and robust reporting capabilities.

This latter point is important for an institution's development office, which must maintain positive relationships with contributors and keep track of funding sources.

•**Fiscally sound with a proven track record**. An affinity marketer should have a strong infrastructure and reputable management. Also, the company should be able to demonstrate a track record of satisfied customers. Asking for references of customers and contacting them for their assessment of an affinity marketer's service record is advisable. Going forward, the affinity marketer should keep the institution informed of all supporters' purchases, usage patterns and inquiries.

Strategies for a new economy

In the past, individuals represented the largest sector for giving to non-profit organizations. The Giving USA Foundation reported that in 2006, 75.6 percent of all contributions to non-profit organizations, including colleges and universities, came from individuals. They contributed $222.89 billion dollars that year. The rest of the breakdown was as follows: foundations: $36.5 billion (12.4 percent); bequests: $22.91 billion (7.8 percent); and corporations: $12.72 billion (4.3 percent).

Individuals represent the largest constituent of givers and also could represent the largest opportunity in an affinity marketing partnership. Imagine reaching out to every student, alumni, faculty member, administrator and member of the board with information about a new affinity marketing partner and how the purchase of a phone or Internet service could provide dollars for the college. Imagine the potential funds that could be raised through their ordinary purchases from an affinity partner. The potential is there for enlightened development officers who recognize that hard times demand new strategies. ■

NOTABLE

500 Estimated number of registered public charities in 1994.

1,000 Estimated number of registered public charities today.

Source: National Center for Charitable Statistics (NCCS)

Halliday is CEO/President of Affinity4, Norfolk, Va. He can be reached at shalliday@affinity4.com or (757)965-4214.

WEB 101

For more articles on fund raising and education spending, visit the article archives at ASUmag.com.

Quality Assurance

Lessons learned from commissioning.

C. WILLIAM DAY



Day is senior analyst at KBD Planning Group, Young Harris, Ga., a firm specialized in education facilities and technology planning. He can be reached at bday@kbdplanning.com. www.kbdplanning.com

Technology commissioning is a quality-oriented process for achieving, verifying and documenting that the performance of educational technology systems and assemblies meets specifications.

In any project, contractors and various subs each do their jobs, but the results may not be satisfactory. It can take months to remedy problems. A commissioning agent tests systems to ensure that everything works as designed.

Interest in technology systems commissioning is growing. It offers many obvious benefits, but it requires an investment of time and money, which can become significant depending on the complexity of the systems involved.

At the heart of commissioning, functional performance testing is the most critical and time-consuming step. This is the point at which all components and subsystems are tested together to verify that the overall facility meets design objectives from a systems perspective. This step takes time because it generally requires coordinated participation by all vendors and the school.

Some common mistakes:

•**Bringing the commissioning agent on after the technology integrator has been paid in full.** The end of a project is the most difficult time to get anything fixed. You can't go in after the fact and commission something. A commissioning agent needs to arrive just before the project is completed—while payments still can be held pending resolution of any issues.

Before commissioning, the agent should be presented with all bid specifications, including the bid documents offered by the contractor.

•**Rushing the commissioning process.** Technology systems generally are the last major component completed in a project. Take your time with this process; it may be your best chance to make sure it is done correctly.

•**Failure to have the integrator rectify problems prior to the final payment.** This is the most common mistake that institutions make. Depending on the size of the project, no less than 5 to 10 percent should be retained by the school until the commissioning has been completed and necessary corrections made. It can be difficult to get an integrator back on site once he or she has received payment.

Technology commissioning is an insurance policy that helps to ensure the success of a school's technology systems. Technology systems are designed and built in order to address an institution's requirements and needs. Commissioning validates the investment by providing a framework for successful and smooth operation of those systems.

Given the time and money invested in education facilities, good planning (and the experience on which good planning is based) pays off in substantial risk mitigation and avoidance. That helps to get facilities into operation faster and speeds their positive effect on the bottom line. ■

Artful Integration

A school building can be a work of art.

JAMES E. RYDEEN



Rydeen, FAIA, is an architect/facility planning specialist and former president of Armstrong, Torseth, Skold & Rydeen, Inc. (ATS&R), Minneapolis. He can be reached at Jrydeen@atsr.com.

Art in schools is more than just an art class or display. Aesthetically, the design of a building, exterior and interior, is a sculptural art form. Integrating art into architecture is an added dimension.

Aesthetics in architecture involves art and science, intellect and emotions. Some examples:

•A mural constructed in colorful glazed tile at an auditorium entry with designs expressing the fine arts.

•An exterior brick facade of an elementary school with exotic animals expressed in colorful glazed tile.

•The foyer of a high school with display cases, wayfinding graphics and a clock tower in a storefront facade.

•A "wall of fame" that offers background of a school's 135-year history.

•Patterns, compass points, school identity and cultural symbols expressed in terrazzo floors.

•Displays of comedy and tragedy used in auditorium designs, executed in ceramic mosaics, wood carvings and frosted glass.

•Graphics to illustrate "Welcome to Kindergarten" with a colorful theme and large-scale animated figures.

Communities and districts also may request artistic design features unique to their culture, such as:

•Recognition of a city's history as a Mississippi River town in the design metaphor for a new high school. The floor plan mimicked the winding river as the primary circulation route—eddies create student gathering points, and tributaries form the classroom wings.

•A design metaphor for Maple Grove (Minn.) High School was based on the maple leaf, which was reflected in the shape of the floor.

•The rotunda entry of a high school included a display on the balcony soffit of the motto of the first graduating class in 1876: *Non Scholae, Se Vitae Discimus*—"We learn not for school, but for life."

•Marty Indian School in South Dakota is designed in the shape of the sacred eagle, and a landscaped series of circles expresses the "Land of the Friendly People of the Seven Council Fires."

Sometimes historical features are discovered that add life and meaning to a school and the community:

•A wall fresco encircling a large room, portraying the history of an Indian tribe and pioneers settling a town, was discovered in a 1905 structure during a remodeling project, and the fresco was restored.

•The legacy as the oldest high school in Minnesota is reflected in the sculptural shape of a courthouse cupola in the tower, housing the bell used to summon students from 1873 to 1939.

Integrating art and architecture reinforces a building's individual identity by capturing the unique essence or spirit of a community. Integrating art into the architecture increases the personalization of the school and enhances the aesthetic experience. ■



Promising Programs

2009 brings hope for green-cleaning efforts.

STEPHEN ASHKIN



Ashkin is executive director of the Green Cleaning Network, a 501(c)3 not-for-profit educational organization.
www.GreenCleaningNetwork.org
SteveAshkin@GreenCleaningNetwork.org

The year has begun with hope and excitement tempered by concerns caused by the nation's economic crisis. One reason for optimism is that green programs are a high priority for our new national leaders.

The great news is that these programs are based upon providing grants to public and private buildings, including schools and universities. For those of you in an existing public building that seeks financial assistance for a retrofitting program, there is help. If you have dreams of constructing a new building that follows LEED guidelines, you also may be eligible for financial assistance.

In the "Barack Obama and Joe Biden: Promoting a Healthy Environment" fact sheet, the incoming administration spells out how it will confront climate change, with specific measures regarding energy management, and the soundness of new and existing buildings.

Obama and Biden appear determined to do some heavy tinkering with the EPA and Federal Energy Efficiency Codes, and "flip incentives" with energy utilities. According to the plan, for utilities that establish efficient programs and then pass the savings on to their customers, the administration will "ensure the utilities get increased profits" for promoting and practicing energy conservation, as opposed to allowing utilities to enjoy heightened profits through the practice of energy mismanagement and waste.

For new and existing buildings, the plan is to use "innovative measures to dramatically improve efficiency of buildings." Specifically, Obama's team will create a set of National Building Efficiency Goals, making all new buildings carbon neutral by the year 2030. It also will set a national goal of "improving new building efficiency by 50 percent and existing building efficiency by 25 percent over the next decade to help us meet the 2030 goal."

A grant program for "Early Adopters" promises to help expedite efforts during this economic downturn. Pioneers and self-starters in establishing new building codes and programs that prioritize energy efficiency, retrofitting and similar green programs can position themselves favorably to receive an award.

Other "matching" federal grants soon may be available for states that allocate funds to support energy-efficiency retrofits for existing buildings. The new administration plans to expand Federal Efficiency Grants for public buildings that "adopt aggressive green building provisions" such as the USGBC's LEED requirements.

To anticipate these and other related opportunities, school and university planners should get organized. Document what has been done to make your buildings green, and include green cleaning and other efforts—past, present and planned—with as much detail as possible. For those in the planning stage, lay out your plans, goals and logistical hurdles. ■

Carbon-neutral vision

Illinois college aims to be state's first self-sustaining college by 2012



Lake Land College, heat pump diversification loop installation, Mattoon, Ill.

Control Technology and Solutions (CTS). Leaders at Lake Land College, Mattoon, Ill., were determined to install a campuswide geothermal power system to reach their goal of becoming Illinois' first self-sustaining college by 2012.

The college is working closely with Control Technology and Solutions (CTS) to achieve its vision through a four-phase, five-year plan, which started in 2008. A campuswide geothermal power system, along with solar panels and wind turbines, will save the school 850,000 kilowatt hours (kWh) of electricity and 70,000 therms of natural gas annually, for a carbon reduction of 556 metric tons each year.

Phase I, completed in 84 days during the 2008 summer break, included installation of the central plant's 12-inch-diameter heat pump diversification loop, running 3,000 feet around the circle-shaped campus perimeter. The closed-loop geothermal heat-pump system works by piping water deep into the earth via wells that capture the earth's heat in winter and dissipate heat in summer.

The geothermal system alone will cut energy demand by 40 percent and reduce electricity use by at least 580,000 kWh. At project completion, the goal is for the system to supply 100 percent of the campus' heating and cooling.

"Our solution is clean and quiet, moving the proper amount of air," says Raymond E. Rieck, vice president for business services. "Students and teachers have been delighted by the move from hot and dark spaces with stale air to cool, well-lit classrooms. That helps the college better fulfill its mission."

Circle 170 for more information ■ freeproductinfo.net/asu



Athletic equipment storage

Bison Inc. Equipment for up to four complete volleyball courts can be stored in one compact cart. Eight posts, four nets, eight post pads, four pair of antennae and up to 12 volleyballs can be stored neatly and transported easily from storage room to court. Floor-friendly casters support heavy-steel volleyball stands and allow this cart to move easily. The carts can be customized with school or mascot names.

Circle 155 for more information
freeproductinfo.net/asu



HD video surveillance

Dedicated Micros. The DV-IP HD video server is for security applications that require megapixel network cameras and high-definition displays. Its compact size allows for either rack mounting or desktop placement. The cost-effective video server supports high-definition CCTV recording, playback and local 1080i HDMI (High-Definition Multimedia Interface) monitor outputs. The local playback through attached HD monitors eliminates the requirement to stream the live or recorded megapixel camera streams to separate viewing stations.

Circle 156 for more information
freeproductinfo.net/asu



Faucets and fixtures

Chicago Faucets. The ECAST line was developed in response to California Assembly Bill 1953, which establishes new lead-content levels for faucets, pipes and plumbing fittings. The line provides durable brass faucets and fixtures, including deck-mounted and wall-mounted faucets, metering faucets, stop valves, specialty fittings and bubblers. Chicago Faucets also can assist with specifications and quotes for upcoming projects immediately. This is important because the new law very likely will affect projects that are in the planning stages.

Circle 157 for more information
freeproductinfo.net/asu

CONTINUED...

Simultaneous savings

Large-scale roof installation at Ohio school district saves money and reduces environmental impact



Berea City School District, Berea High School re-roof project, Berea, Ohio

West Development Group (WDG). The Berea City School District near Cleveland, Ohio, began a program to reduce energy consumption in its 11 buildings. Among other improvements, the district re-roofed its buildings using the System 14 Silicone Roof System and spray polyurethane foam (SPF), with a minimum insulation factor of R-11.

The project included 522,595 square feet of new roof, with 385,000 square feet of roof removal—all of which had to be completed within eight weeks. Most of the buildings required 1.5 inches of WDG SPF and a 20-mil solvent-free base coat. Using solvent-free silicone prevented the release of about 3,000 gallons of solvent into the atmosphere—enough petroleum to drive a car around the world three times.

The SPF's high-insulating properties will provide substantial energy savings over the life of the roofs. The manufacturing process, which uses WDG's R2R Roof-to-Roof process, provides additional environmental benefits. In this process, about 20 percent of the silicone consists of recycled EPDM from old roof tear-offs, saving tons of EPDM from going to landfills. Nearly 10,000 square feet of the EPDM roofing that was removed from Berea City Schools is being recycled into new roofing products for other projects.

The EPDM also adds to the desired physical properties of the silicone coating, such as formulation for exposure to harsh outdoor environments such as UV rays, ozone, water and ice.

Ohio law requires that upgrades to school buildings must result in energy savings that pay for the upgrades within 10 years. So far, the district's energy savings goals are being met, and the district is on schedule to meet the state's requirement.

Circle 171 for more information ■ freeproductinfo.net/asu



Used-oil boiler

Clean Burn. The CB-500-CTB is a large-capacity used-oil coil tube boiler that can recycle large volumes of used oil (3.6 gallons per hour). Designed to recycle used oil and produce hot water, it can be used for in-floor, baseboard and space heating, as well as for ice-melt applications. It has an input rating of 500,000 BTU. It weighs 1,600 pounds and can heat an area of more than 12,000 square feet. The unit has a low-mass design that holds 20.6 gallons of water, yet 37 gallons per minute flow through the coil.

Circle 158 for more information
freeproductinfo.net/asu



Wireless solution

Cellular Specialties Inc. With Digital Signal Processing (DSP) technology, DSP85 offers the market's highest level of performance and flexibility with major benefits over traditional repeaters including unlimited agility, sharp filtering and state-of-the-art monitoring and control. One model meets all market configurability requirements, reducing inventory costs and deployment time.

Circle 159 for more information
freeproductinfo.net/asu



Dish washing

Hobart. The CL*e* conveyer warewasher delivers clean and sanitized dishware at a low cost. It is ENERGY STAR-qualified; final-rinse water usage is as low as 0.39 gallons per rack. It uses Hobart's NSF-certified Opti-Rinse system, as well as an energy-saving Auto-Timer that is configured to shut off the pumps and conveyor automatically after a predetermined time once the rack exits the machine.

Circle 160 for more information
freeproductinfo.net/asu



Greywater system

Sloan Valve Company. The Sloan AQUS Greywater System reclaims greywater from bathroom drains and reuses it in toilets, saving thousands of gallons of water annually. The system funnels water that flows down lavatory sinks and routes it through a sanitizing device that disinfects and filters it. The water then goes to a storage reservoir under the sink. When a toilet that is connected to the system flushes, water is pumped from the reservoir to the flush tank.

Circle 161 for more information
freeproductinfo.net/asu



Furniture layout

Smith System. DesignU is an online design planning tool configured to help those involved in furniture purchasing to better understand how the furniture will function in day-to-day classroom, computer lab and library environments. Available at www.smithsystem.com/designu, it enables dealers, designers and school personnel to simulate different furniture configurations and design the optimum learning environment based on curriculum and teaching methodology.

Circle 162 for more information
freeproductinfo.net/asu



Backup power

Russelectric Inc. Custom-designed emergency/backup power systems automatically keep critical security equipment and systems up and running if the utility feed is lost, even for a short time. Upon receiving a utility power failure signal, switchgear starts engine generators and controls their synchronization and individual circuitbreaker closure to parallel the generators onto the emergency bus. Additional controls allow transfer of loads to the emergency bus on a priority basis.

Circle 163 for more information
freeproductinfo.net/asu

CONTINUED...

Building skills

Ready-to-assemble framing system helps utility pole-setting lab reach completion in 14 months



Northeast Community College, Utility Line Building, Norfolk, Neb. Photo courtesy of Northeast Community College

VP Buildings. Completed in July 2007, the 36,800-square-foot Utility Line Building at Northeast Community College, Norfolk, Neb., houses the only indoor utility pole-setting lab in the nation. The indoor setting enables students to learn year-round the skills required to do work for power and utility companies.

About 75 utility line (UL) students and six professional truck driver-training students began the fall 2007 semester in the $2.7 million facility that includes nine new classrooms/labs, six offices and two mechanics' bays. The poles in the building are 35 feet tall. However, students also practice on poles in the outdoor labs that are up to 60 feet tall.

The building was designed to be energy efficient in heating, cooling and electrical power consumption. It features motion-sensor lighting controls and other energy-saving devices. VP's framing system was used because of its cost-effectiveness and the quick turnaround time of construction. Because the framing system arrived ready to assemble, no time was required to cut the material to size, and there was no expensive waste. The project was completed in just 14 months.

The building also is surrounded by 600 acres of outdoor lab space. The facility can accommodate more than 100 full-time UL students on a daily basis and up to 48 truck driving students a year.

Crafts Inc. (Norfolk, Neb.), an independent authorized Varco Pruden Builder, was the general contractor for the project.

Circle 172 for more information ■ freeproductinfo.net/asu



USB duplicator

Hamilton Electronics. The Edu-Cast USB Duplicator System with MP3 Players is a standalone flash drive duplicator system. Sleek and compact, it streamlines the duplication of classroom materials so students can learn at home or on-the-go. The duplicator system makes it easy to duplicate any lesson or podcast onto USB media players and flash drives.

Circle 164 for more information
freeproductinfo.net/asu



Water-saving showerhead

Alsons. Fluidics spray technology delivers a reduced, water-saving flow while giving the user a superior showering experience. The showerheads are available with a 1.85 gallons-per-minute (gpm) spray, a 1.75 gmp spray and a 1.6 gpm spray—a 36 percent water savings over the standard 2.5 gpm. It also is available in a two-spray unit that allows the user to switch between a water-saving 1.85 gpm and standard 2.5 gpm with the turn of a lever. The fluidics technology features a series of chambers that control the shape, velocity and thermal dynamics of water with no moving internal parts that would wear or need repair.

Circle 165 for more information
freeproductinfo.net/asu



Roofing system

The Garland Company. The 2-Ply roofing systems provide the waterproofing integrity of modified bitumen technology with the labor-saving design flexibility of a simplified base/cap system. It ensures waterproofing performance, while reducing labor and asphalt costs significantly compared with 3- and 4-ply modified bitumen solutions. The 2-Ply systems can be hot-applied, cold-applied, torch-applied or self-adhered; are available in a variety of thicknesses; and can be configured with mineral, smooth or gravel surfacing, providing optimum flexibility to meet a full range of performance requirements.

Circle 166 for more information
freeproductinfo.net/asu

Web presence

Customized CMS-based website helps boarding school streamline operations



Dana Hall School website, Wellesley, Mass.

Sametz Blackstone Associates. Dana Hall School, Wellesley, Mass., is an independent boarding and day school for girls in grades 6 to 12. It recently underwent a complete brand renovation, including redeveloping its website. The school adopted a new technology platform as well—an open-source content-management system (CMS) for the site.

Previously, the website was on a proprietary technology platform that made content updates and site evolution difficult and time-consuming. Each change required working with the website vendor, and the technology limited the school's website functionality and design options.

The new site, built on the Joomla CMS, has provided Dana Hall with advantages on many fronts. The design reinforces the voice of the school's brand and helps it stand apart from other schools. Communications staff now can edit content, add pages and modify navigation instantly, and staff in other departments can contribute material. Because the CMS is open-source, the school is not locked into an expensive maintenance agreement.

The switch has made it easier for the school to use its website as a strategic communications tool.

"It helps us meet our overall goal of telling more student stories, which really resonate with our target audience," says Liza Cohen, director of communications. "And it's as unique as we are—it's not a cookie-cutter site."

Circle 173 for more information ■ freeproductinfo.net/asu



Painting application

JLG Industries. The LiftPod combines the portability of a ladder with the stability of a work platform. Its lightweight and compact design (it weighs 145 pounds) makes it easy for a single person to move it around on the worksite, assemble it in less than 30 seconds, and operate it with ease. A sturdy platform and enclosed basket, in addition to a work tray that holds tools and materials, allow workers to focus on their jobs, work with both hands, and work with a 360-degree range of motion.

Circle 167 for more information
freeproductinfo.net/asu



Fixed seating

Sedia Systems. The Tecton features a contemporary textured polypropylene back with a perforation detail. The chair can be enhanced with an upholstered back panel or armrests for additional comfort. The stack frame is available in black, chrome and gray. In addition to stack, base options include task, castor and swing-away.

Circle 168 for more information
freeproductinfo.net/asu



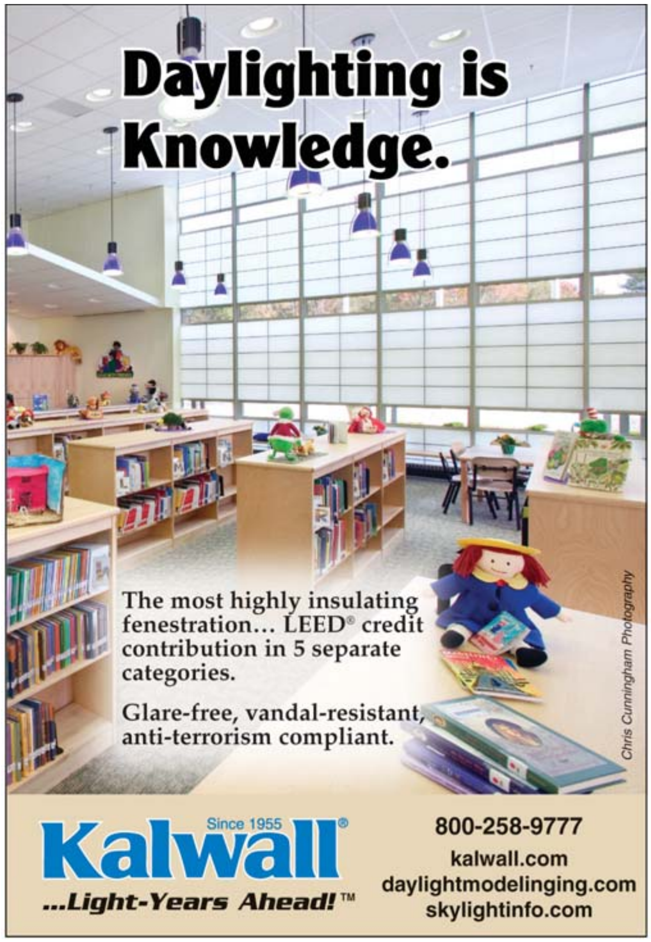
Green hand dryer

Bradley. The Aerix is an adjustable-speed hand dryer that suits any application. Multiple speeds give facility managers the option of turning up for fast drying in settings such as recreation centers and schools, or turning down for quiet operations such as museums or libraries. Aerix series hand dryers are a green solution because they use 80 percent less electricity than other dryers. ■

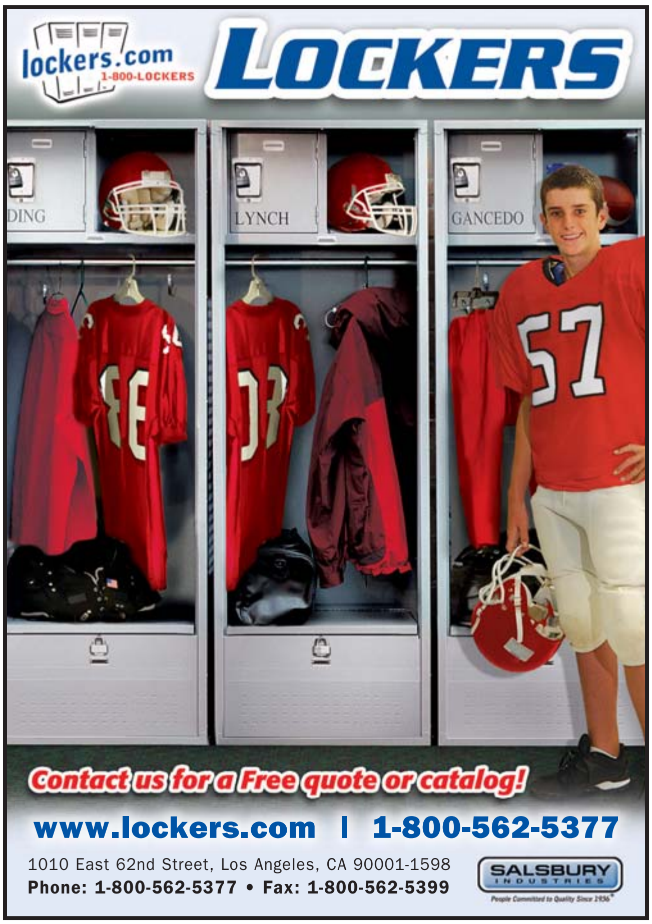
Circle 169 for more information
freeproductinfo.net/asu



Circle 200 for more information



Circle 201 for more information



Circle 202 for more information



Executive Director

The Collaborative for High Performance Schools (CHPS, pronounced "chips") seeks a full-time Executive Director. The successful candidate would begin as the Deputy Executive Director and work with the current part-time Executive Director for a period no longer than six months, at which time the candidate would become the Executive Director. The current Executive Director would then continue as an advisor.

Responsibilities of the Executive Director

Serve as a charismatic leader of the green schools movement

Serve as the public face of CHPS and form partnerships with:

- Regulatory, legislative and governmental entities
- National media
- National school associations
- Schools and districts

Help CHPS complete its transition from a regional organization to a comprehensive national program

Manage a growing staff and organization budget

Direct and implement a strong fundraising program

Ensure that CHPS' technical resources continue at the forefront of green building science

Increase and deepen CHPS' web presence

Direct development of national education and training program

Empower and nurture staff and volunteers

Selection Process

Prospective candidates are requested to submit an annotated résumé that matches job experience with this position's requirements, an introductory letter and three professional references to *EDSearch@chps.net* by Monday, February 16, 2009.

COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS
CHPS
Better buildings. Better students.

AD INDEX

For more information on products and services for education facilities and business, refer to the advertisements of interest and circle the corresponding reader service numbers on the free info cards.

Circle No.		Page No.	Circle No.		Page No.
118	American Seating	BC	105	The Mohawk Group	9
203	Bird-X	57	114	Musson Rubber Co.	29
104	Buckeye International, Inc	7	151	Musson Rubber Co.	29
115	CBT Supply, Inc	33		NFMT	47
152	CBT Supply, Inc	33	103	ProTeam	5
101	Dell, Inc	IFC	117	ProTeam	IBC
106	Eldorado Stone	10-11	202	Salsbury Industries	56
107	INVISTA	15	111	Sico America Inc	23
110	Kalwall	19	112	Southern Bleacher Co.	25
150	Kalwall	18	102	Virco	3
201	Kalwall	56	108	VS America, Inc	17a
200	Major Industries	56	109	VS America, Inc	17b
113	Metpar Corp	27	116	World Dryer	35

For ad production questions, deadlines and ad specifications, please contact Jessica Andreas at (913)967-1845, Fax (913)514-7087.

SALES TEAM

Inside Sales
Gary Kazmier
6151 Powers Ferry Road NW,
#200, Atlanta, GA 30339
Phone (770) 618-0374
Fax (770) 618-0204
gary.kazmier@penton.com

National Sales Manager
Bill Perry
6151 Powers Ferry Road NW,
#200, Atlanta, GA 30339
Phone (770) 618-0453
Fax (770) 618-0349
bperry@asumag.com
Serving: AL, AR, FL, GA, LA, MS, NC, OK, SC, TN, TX

JoAnne Romanek
306 Shaker Lane
West Chester, PA 19380
Phone (913) 981-6132
Fax (913) 514-6356
jromanek@asumag.com
Serving: CT, DC, DE, IA, KY, ME, MD, MA, MI, MN, NH, NJ, NY, OH, PA, RI, VT, VA, WV, Eastern Canada

Ron Levinson
7212 E. Whistling Wind Way
Scottsdale, AZ 85255
Phone (480) 473-4800
Fax (480) 473-7008
ron@levinsonmedia.com
Serving: AK, AZ, CA, HI, ID, MT, NV, OR, UT, WA, WY, Western Canada

Tom Nilsen
269 S. Old Creek Road
Vernon Hills, IL 60061
Phone (847) 634-0850
Fax (913) 514-3969
tom.nilsen@penton.com
Serving: CO, IL, IN, KS, MO, NE, NM, ND, SD, WI

Editorial Business Office: 9800 Metcalf, Overland Park, KS 66212-2216. (P.O. Box 12901, Overland Park, KS 66282-2901).
Phone: (913) 341-1300, Fax: (913) 967-1905, Website: www.asumag.com

American School & University (ISSN: 0003-0945) January 2009, Volume 81, Number 5, published monthly, with a 13th issue in June, free to qualified persons in the United States, by Penton Media, Inc., 9800 Metcalf Ave., Overland Park, KS 66212-2216 (penton.com). Subscription rates: Free and controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following rates: USA: 1 year, $69, 2 years, $109; Canada: 1 year, $79, 2 years, $139; other international: 1 year, $99, 2 years, $159. For subscriber services or to order single copies, write to American School & University, P.O. Box 2100, Skokie, IL 60076-7800 USA; call (866) 505-7173 (USA) or (847) 763-9504 (Outside USA); or visit www.asumag.com. Periodicals postage paid at Shawnee Mission, KS and additional mailing offices. Canadian Post Publications Mail Agreement No. 40612608. Canada return address: Bleuchip International, P.O. Box 25542, London, ON N6C 6B2. **POSTMASTER:** Send address changes to American School & University, P.O. Box 2100, Skokie, IL 60076-7800 USA. Allow 6 to 8 weeks for change of address.

A History of Innovative Solutions...









...And Still Leading The Way.

American Seating has seated millions of students since introducing its first student-desk combination in 1886. As a leader in state-of-the art solutions for education, we continue to set the standard for product innovation, durability and high return on investment. With our newest swing-away and fixed-seating offerings, our educational products are still leading the way.



Let us show you how we can help your school or university. Visit us online at americanseating.com, or call (800) 748-0268 to speak to an American Seating representative.

AMERICANSEATING
A History of Innovative > **SOLUTIONS**

Circle 118 for more information ■ freeproductinfo.net/asu

A-ASU-109

American Seating is committed to lessening our impact on the planet through responsible stewardship of our environment.